St. Mary's University

PROCEEDINGS OF THE 16th NATIONAL MULTI-DISCIPLINARY SEMINAR (MDS)

July 11, 2024
Addis Ababa, Ethiopia

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The 16th National Multi-disciplinary Research Seminar

Research and Knowledge Management Office (RaKMO)

July 11, 2024

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Preface

Welcome to the proceedings of the 16th Multidisciplinary Seminar, hosted by St. Mary's University on July 11, 2024. This event brought together esteemed scholars from various institutions, including Addis Ababa Science and Technology University, Kotebe University of Education, Wolaita Sodo University, St. Mary's University, and Ethiopian Police University.

The seminar served as a vibrant platform for the exchange of ideas and innovative research across multiple disciplines, fostering collaboration and dialogue among participants. We are proud to present a compilation of nine insightful papers that reflect the diverse expertise and perspectives of our contributors.

We extend our heartfelt gratitude to everyone involved in organizing this seminar, from the dedicated faculty and students who contributed their time and effort to the Research and Knowledge Management Office, which meticulously compiled these proceedings. Your contributions have been invaluable in making this event a success.

We hope that these proceedings not only capture the spirit of our discussions but also serve as a resource for ongoing research and collaboration in the future.

Thank you for your participation and support.

St. Mary's University
Research and Knowledge Management Office
January 2024

Opening Remark, by Wondwosen Tamerat (PhD), founder and president of St. Mary's University.

Dear members of the University's community,
Invited guests,
Paper presenters,
Master of the ceremony, chairpersons and rapporteurs of the day,
It gives me great pleasure to welcome you all to the 16th Multidisciplinary Seminar organized and sponsored by St. Mary's University.

As you may all note, this platform is known for bringing together experts from various backgrounds and a multitude of multidisciplinary topics that address a variety of subjects and themes of societal importance.

Today, we have nine research papers that address subjects, such as university education, leadership, food security, agriculture, dispute or conflict resolution, women employment, the role of social capital, and children's out of school experiences. I am happy to note that this year's presenters are drawn from Addis Ababa Science and Technology University, Kotebe University of Education, Wolaita Sodo University, Police University and St. Mary's University.

While the diversity of topics is a clear indication of what the seminar is all about, the background of the presenters is suggestive of how this platform is contributing its share toward the increasing public private partnership, the Ethiopian higher education sector needs. We hope the conference participants will not only use the daylong event to learn from the wisdom and knowledge of paper presenters but also take the opportunity to network with others and establish valuable personal and professional relationships.

Although it takes a lot of energy, resources and commitment to organize such a conference, the Research and Knowledge Management Office (RaKMO) of St. Mary's University continues to prove its strength by successfully holding the event for the last sixteen years. Given its additional responsibilities of organizing other similar events and tasks, the publication of three journals and other institutional outlets, the Office would have found it very difficult to undertake this huge responsibility had it not been for its strong leadership and energetic members.

St. Mary's University is grateful to Dr. Misganaw and his team for their dedication and relentless efforts and hopes to see their endeavors thrive in the years to come. I also wish to acknowledge the collective efforts of the University community whose joint efforts are always critical in running such a successful seminar.

Once again, I extend a very warm welcome to all participants and hope that the seminar will be fruitful, enticing and engaging. I wish you all a successful day and useful deliberations.

Thank you for your attention!

Alternative Dispute Resolution Services for Social Cohesion: The Case of Addis Ababa Chamber of Commerce and Sectorial Associations

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Abstract

This study investigated the role of Alternative Dispute Resolution (ADR) in Promoting Social Cohesion with a specific focus on the Addis Ababa Chamber of Commerce and Sectorial Association (AACCSA). The primary objective was to assess how AACCSA utilized ADR to resolve disputes and its contribution to post-dispute relationships within the business community and broader society. To achieve the intended objectives of the study, qualitative research method was used in order for the data to be collected, analyzed and interpreted. IDI and FGDs were prepared for arbitrators, mediators, conciliators, practitioners and individuals that were experienced and had the exposure to ADR. The research questions addressed the role and contributions of AACCSA, AI's ADR services, the challenges faced, and the roles of government, private organizations, and society in promoting ADR. The key findings of the study indicate that AACCSA, AI's, and ADR services significantly strengthened social cohesion by providing efficient and cost-effective dispute resolution that preserved relationships. However, challenges, such as lack of awareness, limited resources, and insufficient integration of ADR into formal legal systems hindered its full potential. The study emphasized the need for greater public education on ADR, enhanced support from the government, and active involvement of private organizations to foster a more cohesive society. The implications of these findings suggest that a well-supported ADR framework could play a crucial role in maintaining social stability and preventing conflicts from escalating. By addressing the identified gaps, this study provides a foundation for any interested stakeholders to enhance the efficacy of ADR mechanisms in Ethiopia, ultimately contributing to sustainable peace and development. The study concludes that strengthening ADR infrastructure, recognition and awareness can significantly enhance social cohesion, offering a viable path for conflict resolution and the promotion of harmony within diverse communities.

Key Words: Conflict, Alternative Dispute Resolution, Social cohesion, Addis Ababa Chamber of Commerce and Sectoral Associations

1. Introduction

A dispute has been an unavoidable part of societal interaction since the development of human settlement. If a dispute is not handled properly and resolved early, two individuals' disagreement will grow and become a threat to national security, peace, and stability. Conflict is a process that begins when one party perceives that another party has negatively been affected, or is about to negatively affects, something that the first party cares about (Slabbert, 2004). Conflict should wisely be resolved before it moves out of control and turns to be destructive. Resolution of conflict is crucial for day-to-day coexistence as human societies are in constant search of resolution mechanisms for conflicts (Pankhurst and Getachew, 2008).

Historically, societies have resolved disputes through private tribunals, a practice that continues alongside formal courts and administrative tribunals. These are known as Alternative Dispute Resolution (ADR) mechanisms. ADR resolves conflicts amicably, allowing parties to preserve their relationships post-dispute. It offers an efficient, cost-effective means for parties to assert their rights, fostering trust and unity within communities. The term "alternative dispute resolution" encompasses a variety of conflict resolution methods that serve as adjuncts or alternatives to formal legal processes. It includes a spectrum of processes from arbitration, which mimics court proceedings, to facilitated settlement negotiations, where parties are encouraged to negotiate directly prior to any legal action. ADR also covers procedures aimed at promoting community development or managing internal conflicts. The primary ADR methods are arbitration, conciliation/mediation, and negotiation (Nancy & Rogers, 1992; Eshetu & Getu, 2009).

An essential component of a prosperous and peaceful country is social cohesion. Corps' (2011) definition of social cohesion is "a sense of shared purpose and trust among members of a given group or locality and the willingness of those group members to engage and cooperate to survive and prosper." It strengthens ties between and within various groups and increases public confidence in institutions. In nations where various identity groups coexist geographically, governmental policies, civil society involvement, and interactions between various organizations must all prioritize fostering or reinforcing social cohesion. When there has been or is currently antagonism, mistrust, or conflict between various identity groups or between the state and its population, it is even more crucial (Corps, 2011).

The role of the business community in keeping the peaceful coexistence of members of society should be considered nowadays. The United Nations Business for Peace (B4P) initiative actions and within business institutions' deed of Corporate Social Responsibility (CSR) tasks both national and international corporations are being encouraged to take more active roles in framing new global peace-building and development agendas (Aaron et al., 2013). Solving the business community's disputes helps peace-building development of a country.

The importance of resolving disputes has become increasingly evident in today's globalized world, where the rapid growth of population, economy, and technology has created a complex web of interconnected issues that can easily escalate into conflicts (Friedman, 2005). The need for effective dispute resolution mechanisms is particularly pressing in the context of social cohesion, as conflicts between different groups can quickly become entrenched and difficult to resolve (Putnam, 2007).

Globally, ADR has gained recognition as a valuable tool for resolving conflicts and promoting social cohesion (Bourdieu, 1999). ADR refers to a range of dispute resolution processes that are alternative to formal litigation, including arbitration, mediation, and negotiation (Rogers, 1992). These processes are often less formal and less expensive than litigation, and can be tailored to the specific needs of the parties involved (Croley, 2010).

In Africa, ADR has been embraced as a means of resolving conflicts and promoting social cohesion (Kihato, 2013). The African Union has recognized the importance of ADR in promoting peace and stability on the continent, and has called for the development of ADR mechanisms that are tailored to African cultural and legal traditions (African Union, 2008). In many African countries, ADR is already an integral part of the legal system, with traditional dispute resolution mechanisms existing alongside modern ADR processes (Oragwu, 2014).

In Ethiopia, ADR has a long history, with traditional dispute resolution mechanisms having been used for centuries to resolve conflicts between communities and individuals. However, the modern ADR system in Ethiopia is still in its infancy, with a lack of awareness and understanding of ADR processes among the general public and legal professionals (Melaku, 2016). Despite this, there are efforts underway to promote ADR in Ethiopia, including the establishment of the Addis Ababa Chamber of Commerce and Sectorial Associations Arbitration Institute (AACCSA AI) in 2002 (About Arbitration Institute (AI)-Addis Chamber, n.d.).

Established on 26 January 2002 to realize one of the oldest legal mandates conferred to the Addis Ababa Chamber of Commerce since 1947, the AACCSA AI has been serving as a commercial dispute resolution body that is making immense strides over the past twenty-two years to provide its services to various sectors of the business community. AACCSA AI provides ADR services that are designed to be rapid, non-continuous, and inexpensive dispute resolution method that allows parties to avoid the expense of continuous proceedings, and help reserve relationships (About Arbitration Institute (AI)-Addis Chamber, n.d.).

Through examining the central question of how ADR contributes to social cohesion, this research aimed to expand knowledge and encourage legal and other practitioners to emphasize and reinforce the necessity of using ADR to ensure the peaceful cohabitation of society.

2. Statement of the Problem

According to Robin (1996), conflict is the process that starts when one party perceives that the other party harmfully affects something the first party cares about and it's inescapable in human life in which it comes up from interest clashes. Given that conflict appears to be inevitable, we must undoubtedly be able to identify its root cause, assess its potential for both good and bad, understand how to manage it, and practically use conflict resolution strategies. Conflict Resolution Mechanisms are often related to the social, cultural, economic, and way of life of the particular community (Bukari, 2013).

In recent years in Ethiopia, conflict and violence have led to mass loss of life, loss of public and private infrastructure, and resulted in the breakdown of societies. The bonds that link people together have been broken, and internal displacement, caused by conflict, has become a major issue and threatens the sustainability and peaceful coexistence of the society (Woodeneh, 2022).

Ethiopia has been using traditional methods of dispute resolution for many years. The institutions of the *Gadaa* system among the Oromo, the *Shimagelle* by the Amhara, and the other ethnic groups use traditional conflict resolution methods. Recently, incorporating ADR into legal policy has attained significant attention and position in the modern judiciary and civil society. ADR refers to a range of non-litigation-based dispute resolution methods that strive to resolve problems in a way that is workable, efficient, acceptable, and durable to foster reconciliation. It promotes social cohesion by bringing people together from opposing groups through the facilitation of dialogue between many actors at the local and national levels. ADR appears to be a viable reform measure for resolving disputes on time. People can spend more time engaging in other social and economic activities because of the shortened trial times and increased fairness. In the end, this advances the nation's social and economic development. It makes sense, then evaluates the opportunities, difficulties, and strategies for implementing ADR in dispute resolution to promote social cohesion and the research gaps in the area as to the best knowledge

of the researcher. ADR focuses on more than just resolving disputes or applying punitive measures. Instead, it aims to maintain harmony between the parties involved so that animosity within and between parties involved will disappear. Thus, promoting collective social stability and cohesion is the top goal of the study in conflict resolution mechanisms.

This study tries to address: Theoretical Gap: Previous studies in the Ethiopian context have focused primarily on the importance and role of traditional conflict resolution mechanisms in fostering harmony and peaceful relations. For instance, the study conducted on The Role of Indigenous Conflict Resolution Mechanisms for Peace, Security, and Sustainable Development in Ethiopia: The Case of the *Mareko* and *Meskan-Gurage* explored indigenous conflict resolution mechanisms of the region and their role for harmony, solidarity, and shared dialogue among conflicting parties in the region. The other instance is a study entitled "Traditional Conflict Resolution Mechanisms in the Kaffa Society of Ethiopia". This paper aimed at investigating the traditional conflict resolution mechanisms of Kaffa society. The findings of this study show that traditional conflict resolution mechanisms were most effective among older people; younger people disregarded the mechanisms due to 'modernity' and religious reasons. However, these studies were conducted with certain regional areas and may not be conclusive to the rest of the country's context and not enough studies have been conducted about the role of ADR and its role in addressing, conflicts to bring lasting social cohesion in the society. However, this study specifically examined the role and implications of the ADR mechanism in promoting social cohesion, which was the main objective. This represents a shift in theoretical focus from just resolving disputes to maintaining long-term harmony and stability within communities.

It also tried to address Methodological Gap: Past studies have limited to specific regions, made their findings less generalizable to the broader Ethiopian context. This study took a more comprehensive approach by evaluating the ADR mechanism and its impact on social cohesion across a wider geographical area. This allowed for a more holistic understanding of the dynamics at play.

Empirical Gap: While prior research has shown that traditional conflict resolution methods are more effective among elders, the younger generation's utilization and perceptions of these mechanisms are less clear. This study aimed to collect additional empirical data to better understand the nuances in how different demographic groups engage with and view both traditional and ADR approaches to conflict resolution.

The Application Gap: The underutilization of ADR mechanisms can be partially attributed to the lack of awareness among the general public, government, law officials, and organizations regarding its significance (Asnake, 2010). As a result, the diminished status and functions of ADR lead to the underutilization of already established institutions and the extension of these services by the community, government, and organization levels, all of which can be sufficient prerequisites for resolving conflicts. By addressing these multifaceted gaps, the study sought to provide a more comprehensive and impactful understanding of conflict resolution dynamics in the Ethiopian context, with a focus on leveraging ADR mechanisms to foster long-term social stability and unity.

3. Research Objectives

The purpose of this study was to assess the role of Addis Ababa Chamber of Commerce and Sectorial Association Arbitration Institute utilizing ADR services to solve dispute and its contribution to post-dispute resolution relationships among the business community and the society at large to create social cohesion.

4. Research Methodology

This study was conducted at the AACCSA in Addis Ababa, Ethiopia. AACCSA was selected as the study area because it had valuable experience in usingADR methods to solve disputes within the business community. At the time when Ethiopia had no substantive or procedural laws governing the ADR process, AACCSA was legally authorized to take on this responsibility. The organization plays a crucial role in rebuilding relationships and fostering social cohesion through its ADR efforts.

To attain the objectives of the study, a qualitative research and case studywere used to examine the characteristics of ADR methods and their contribution towards peaceful coexistence, sustainable relationships, andultimately social cohesion. This was because the qualitative method helped to develop an in-depth understanding of individual's experiences, beliefs, attitudes, and behaviors (Chawla and Sondhi, 2011). The study centered on the relationships, attitudes, beliefs, and opinions of the experts and other stockholders. It facilitated a more profound and analytical comprehension of social phenomena which are frequently observed in their natural environments. It also made it possible to delve deeply into the information and expertise that AACCSA institutions employed. Purposive sampling was used to identify the research participants. They were selected depending on their experiences in the study area, and when the data gathered added nothing concrete, the data were saturated and gave the signal to end that we won't need to proceed.

The main data for this study was generated through both primary and secondary sources. As the primary source, information was collected from in-depth interviews (IDI) and focus group discussions (FGDs) by asking the same questions to gather different perspectives. In supporting the information gathered through primary sources, secondary data related to ADR were collected from various written documents. The researcher used a qualitative data analysis method to look at, analyze, and explain the role of ADR in social cohesion in the study area. Transcribing and going through the data is the first significant step in the data analysis process. Subsequently, themes emerged that seemed to be significant discoveries, and these should be backed up by a variety of quotes and particular evidence. Thematic analysis was the method employed to examine the qualitative data. The interview notes and recordings were all verbatim transcribed.

Following the reading of the interview transcripts, the data were summarized and categorized into themes. The translated data were categorized case by case to prepare for analyses. The themes that pervaded the data were found to facilitate analyses and discussions. Subsequently, the themes were categorized based on the goals of the research and then the findings from the qualitative data were presented and examined. Ultimately, recommendations and conclusions were developed considering the findings and discussions of the study.

5. Results and Discussions of the Study

5.1. Background Information of the Participants

The total number of the participants that took part in the study was twelve. Seven people were chosen for IDI based on their familiarity with the subject matter and previous involvement with ADR mechanisms. These were arbitrators, mediators, conciliators, practitioners, and formal court judges. To meet the objectives of the study, 5 people were chosen for FGDs and they were homogeneous, experienced and had exposure to ADR. The sample respondents were selected from AACCSA's registered arbitrators, mediators, adjudicators, negotiators, and practitioners in ADR area. Of the 12 participants, eight of them were male while the remaining four were female. Their age range was between 37 to 59. Concerning the educational background, the highest level of education was PhD while the least was degree level.

5.2. In-depth Interviews and Focus Group Discussion Findings

From the thematic analyses of the IDI and FGD data, five major themes, namely, the role of ADR in resolving disputes, challenges or barriers of utilization of ADR, AACCSA, and AI services contributed to social cohesion, roles of government, private organizations, and society in promoting ADR and other initiatives that could support social cohesion were identified

5.2.1. The Role of ADR in Resolving Disputes

The results of the study from both IDI and FGDs show that there were different roles of ADR in resolving disputes. In the major findings regarding the role of ADR, three major roles were identified: maintaining and strengthening relationships, alleviating the pressure of the judicial system, and avoidance of undue delay of trials.

Maintaining and Strengthening Relationships: The findings from the study highlighted the negative consequences of traditional litigation, such as feelings of defeat, hurt, public humiliation, and forced execution of judgments. These consequences can lead to resentment and revenge, hindering long-term resolution. In contrast, ADR methods prioritized communication, trust, and mutual understanding, leading to more effective and lasting solutions. FGDs revealed that ADR could preserve relationships, as the proceedings were confidential, and both parties participated in reaching a mutually acceptable outcome.

Alleviating the Pressure of the Judicial System: The findings in IDI and FGDs highlighted the court's significant workload resulting in long delays in resolving cases. ADR helped ease this pressure by resolving disputes quickly. The study stressed the importance of greater government recognition and support for ADR, including the implementation at regional and district levels, and involving experts from various fields. The media also played a crucial role in promoting ADR and raising awareness of its potential to address the national disputes and reduce the burden on the judicial system.

Avoidance of Undue Delay of Trials: The FGDs addressed that court proceedings required significant time, money, and energy resources, which the community might lack. Therefore, ADR played a crucial role by saving these resources and giving disputants more control over the process. The win-win, clear, and adaptable mediation and conciliation procedures can enhance trust and satisfaction, and allow parties to focus on other social and economic activities. Additionally, the post-litigation relationship between disputants is better preserved through the win-win outcomes of the ADR process.

5.2.2. Challenges of Utilization of ADR

Regarding the challenges of the application of ADR, the current study revealed that he research participants in IDI and FGDs lacked: awareness, proper recognition from stockholders, and sufficient professionals and well-organized centers.

Lack of Awareness: The IDI participants noted a lack of awareness and understanding of the significance of ADR led to limited implementation and effectiveness. The FG participants acknowledged the need for continued training and capacity building for professionals, including judges,to effectively implement ADR mechanisms. This underscored the importance of awareness and training in promoting the use of ADR in Ethiopia. Awareness campaigns and media involvement can educate the public and professionals about the benefits and processes of ADR, while training can equip judges and other professionals with the necessary skills and knowledge to facilitate ADR effectively.

Shortage of Proper Recognition from Stockholders: The IDI and FGparticipants noted that ADR was not given the same value as the court system for enforcing orders and summoning

witnesses, suggesting a lack of recognition and supporting from government institutions which hindered the effectiveness of ADR.

Lack of Sufficient Professionals and Well Organized Centers: This challenge is not unique to Ethiopia, as it is a common issue faced by many countries. A study by the International Bar Association (IBA) found that a lack of trained professionals was a major challenge facing ADR in many countries, including developing countries (IBA, 2018). The study noted that ADR required specialized skills and knowledge and that the lack of trained professionals hindered the effectiveness of ADR mechanisms. The FG participants highlighted the lack of well-organized ADR service centers in Ethiopia, apart from the Addis Ababa Chamber of Commerce. They suggested that the success of the AACCSA in the construction sector could be replicated in other areas, such as family disputes, schools, hospitals, employer-employee issues, and share companies.

5.2.3. AACCSA, AI and ADR Contributions to Social Cohesion

The FG participants stated that the AACCSA has played a significant role in promoting private sector development and investment in Ethiopia by establishing a dispute resolution mechanism that allows businesses to resolve conflicts through ADR. This mechanism has been widely adopted by the business community and has had a positive impact on resolving disputes. The institution's role in dispute resolution has an inherent advantage as they are familiar with the needs and concerns of the business community and have a deep understanding of the legal and regulatory framework governing business activities. IDI participants pinpointed the benefits firstly providing a platform for businesses to resolve disputes efficiently and effectively. This can help to reduce the cost and time required to resolve disputes, which can be a significant burden for businesses. Second, the mechanism promotes community relations. By providing a platform for businesses to resolve disputes, the mechanism helps to build trust and cooperation between different members of the business community. This can help to promote collaboration and partnerships, which can be beneficial for businesses and the wider community. By resolving conflicts in a way that maintains relationships, the Chamber's methods help to create a positive reputation for the business community, which can lead to increased collaboration and cooperation among businesses. Maintaining relationships and fostering a positive business environment have a result of the Chamber's conflict resolution methods that can help to create opportunities for future business collaborations and partnerships. The findings of IDI showed the potential benefits of AACCSA and ADR for the business community and the wider community. By saving time and money, AACCSA and ADR promote productivity, community services, and sustainable development which, in turn, contribute to the well-being and prosperity of the society.

5.2.4. The Roles of Government, Private Organizations, and Society in Promoting ADR

The Role of the Government: The findings suggested the necessity of providing legal frame work to support ADR, implement real judicial reforms to improve the effectiveness of ADR institutions and remove obstacles to justice. To this end, university curriculum should include ADR courses. According to higher education establishments, the government and community must work together to promote ADR and create the more efficient and effective legal systems, simplify court procedures, recognize the role of private professional associations, and promote awareness of the law and individual rights and duties so that ADR can be a powerful tool for promoting social cohesion.

Private Organization and Society Role: Providing trainings t, researches, and empowerment to private NGOs and institutions (both commercial and non-commercial) and media institutions can create awareness in the communites, promote the importance of resolving disputes, and highlight the benefits of resolving them through ADR methods.

5.2.5. Other Initiatives that would Complement ADR and Support Social Cohesion

According to the findings, FGDs and IDI revealed that the majority of disagreements in the society were solved outside the formal court litigation. Individuals, communities and the societies at large solved disputes by informal means of dispute settlements. It was revealed that different cultures having indigenous dispute settlement mechanisms, religious institutes settling disputes of their pupils and other few organizations has established their own ombudsman arbitration panel to address issues. Some of the research participants expressed that they needed justice transformation or legal pluralism recognized by the law and their contributions to be recognized. Other respondents expressed that as every culture and religion is different from others, integrating thesystems like AACCSA institutional decisions needed its own research and clear mapping of implementation. The research participants emphasized the need to recognize and value these methods to be used by generations, and passed them to the next generation. The participant further suggested that the methods were not only effective in resolving disputes but also important in preserving cultural heritage and community values. The participants reflected a desire to recognize and value traditional dispute resolution methods as primary methods of dispute resolution rather than viewing them as secondary or supplementary to the formal legal system. This shows the importance of recognizing and valuing informal traditional dispute resolution methods in the Ethiopian context, and the need to broaden the ADR process to include these methods.It is also important to focus on reconciliation and mediation between communities, and address disputes in the community through traditional dispute resolution methods. There is a need for a justice transformation in Ethiopia, which would require a comprehensive approach to address the challenges faced by the justice system. This transformation should prioritize the recognition of traditional and religious institutions and the provision of legal support for ADR mechanisms as well..

6. Conclusion

The study explores the critical role of Alternative Dispute Resolution (ADR) services in promoting social cohesion, focusing on the experience of the Addis Ababa Chamber of Commerce and Sectoral Associations. It highlights how traditional dispute resolution methods in Ethiopia laid the foundation for modern ADR systems. The establishment of the AACCSA AI in 2002 marked significant progress in institutionalizing ADR. ADR mechanisms like arbitration, mediation, and negotiation are seen as effective in resolving conflicts and fostering peaceful coexistence. ADR is recognized as essential in the current context of conflicts and violence, offering timely and acceptable dispute resolution to preserve relationships and promote reconciliation.

Improving awareness and understanding of ADR processes among the public and professionals is crucial for widespread adoption. The study emphasizes the importance of ADR in Ethiopia, given its rich tradition of dispute resolution. It discusses the effectiveness, challenges, and societal impacts of ADR, underscoring the need for collaborative efforts to overcome obstacles and strengthen infrastructure. ADR's collaborative nature promotes win-win solutions, trust-building, and resource-saving in conflict resolution, making it a vital tool in maintaining social cohesion. Additionally, judicial reforms, educational integration, and partnerships are highlighted as key for advancing ADR's influence and accessibility.

Supplementary programs like ombudsman panels, cultural arbitration, and informal conflict resolution mechanisms are recommended to enhance ADR and promote social harmony. The study concludes by outlining practical approaches to maximize the benefits of ADR for society, positioning it as a pillar of social cohesion and conflict resolution in Addis Ababa and beyond.

7. Recommendations

7.1. Recommendations for the Policy

The government should: establish a comprehensive legal framework that recognizes and supports the use of ADR mechanisms in conflict resolution, provide sufficient funding and resources for the development and implementation of ADR services, establish a national ADR center, promote awareness and education about ADR mechanisms, and encourage the use of ADR in various sectors.

7.2. Recommendations for Education and Awareness

To create educational programs and awareness campaigns that highlight the advantages and procedures of ADR, stakeholders including governmental bodies, academic institutions, and professional associations should work together. As a result, people and organizations will more incline to view ADR as a viable option for resolving disputes. Steps should be taken to enhance the field of ADR by focusing on:

1. Professional Development: Establish standardized training programs and accreditation organizations to ensure the availability of qualified arbitrators and mediators for impartial and efficient dispute resolution.

2. Recognition and Support: Provide more recognition and assistance to ADR institutions like AACCSA to encourage voluntary participation in dispute resolution and increase confidence in ADR outcomes.

3. Infrastructure Improvement: Upgrade infrastructure of ADR institutions with digital case management systems, modern arbitration facilities, and additional offices for wider accessibility.

4. Collaborative Partnerships: Foster cooperation between public and private sectors and civil society to integrate ADR into conflict resolution programs, school curricula, and judicial reforms for effective societal conflict resolution.

5. Promotion of Diversity: Promote inclusivity in ADR processes by considering cultural diversity, offering language interpretation services, and including diverse viewpoints in decision-making panels for increased accessibility and equity.

6. Continuous Evaluation and Improvement: Conduct regular evaluations of ADR policies and procedures, gather stakeholder feedback, and monitor outcomes to adapt ADR mechanisms to changing socio-economic environments effectively.

7.3. Recommendations for Social Work Education

Incorporating ADR trainings in social work education is crucial. It gives students the knowledge and skills to resolve disagreements and conflicts in their fields of studies. Firstly, ADR education provides social work students with a comprehensive understanding of conflict resolution techniques like mediation, negotiation, and cooperative problem-solving. This allows them to determine the viable approach for each situation. Secondly, hands-on ADR experience through fieldwork and internships enable them to apply thetechniques to real-world settings, and hone their facilitation and conflict resolution abilities. Thirdly, collaboration between ADR experts and social work educators can create up-to-date ADR courses, allowing the students to learn from an industry best practices. Fourthly, emphasizing diversity and cultural competence in ADR is important as it is applied across diverse populations. This help them work effectively with people from varying cultural backgrounds. Lastly, encouraging the students to explore how ADR

can advance social harmony and justice can motivate them to become change agents using ADR to address systemic issues. All in all, integrating ADR trainings into social work education is crucial to equip the students with the knowledge and skills to resolve conflicts in their fields of studies.

7.4. Recommendations for Social Work Practices

Social workers should actively participate in ADR processes as conciliators, facilitators, and mediators. They should also collaborate with ADR experts to assist parties in conflict, raise community awareness and understand ADR, advocate for legislative changes to encourage ADR use, and provide parties with resources and referrals to ADR services.

Resolving conflicts and fostering social cohesion are vital roles for social workers. By working with ADR professionals, they can help parties navigate complex issues and reach mutually beneficial solutions. They can also educate communities about ADR to improve access to justice and reduce litigation. Another key responsibility is advocating for legislative changes that promote ADR use, and contributing to more just and peaceful society. Lastly, social workers can help parties by offering information about ADR mechanisms and referrals to ADR services, and ensuring people have the tools to resolve conflicts amicably. Overall, social workers should actively engage in ADR to fulfill their roles in conflict resolution and community building.

7.5. Recommendations for Future Research Direction

The study had some limitations that should be considered for future research. One of the limitations is that the potential for omitting variables. Including additional variables that were not considered in this study may lead to more accurate predictions and a deeper understanding of the benefits of ADR mechanisms in fostering social cohesion. The study's geographic scope was limited to Addis Ababa Chamber of Commerce, which may limit its generalizability to the country. Therefore, future studies should consider other regions, including rural areas, to account for their unique experiences and factors. While this study relied solely on qualitative data, incorporating quantitative data, such as Likert scale-type questions may provide further insight into the topic.

Future research should focus on empirical studies to understand the long-term impact of ADR on social cohesion and community resilience. Assessing the effectiveness of ADR in diverse social conflicts and conducting cost-benefit analyses to evaluate the economic and social returns on ADR investments are crucial. Exploring the integration of customary and formal ADR practices can provide insights into hybrid approaches that enhance local conflict resolution. Investigating the sustainability and scalability of ADR-based interventions will further contribute to the development and implementation of ADR.

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The Role of Social Capital in Community Development: The Case of *Sheger* City, *Furi* Sub-City, Oromia

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Abstract

This study aimed to determine the role of social capital in the community development with a particular reference to Sheger City, Furi sub-city. It employed a mixed-research method within an explanatory research design to assess the impact of different types of social capital factors on community development. Utilizing purposive sampling, with the sample size determined by Cochran's formula, data collection included surveys and interviews with key community stakeholders. Primary data were collected using survey and interview methods, and the quantitative data were analyzed using SPSS while the qualitative data were analyzed thematically. Regression analyses and descriptive analyses revealed that social bonding (mean = 3.38, β = 0.31), social linking (mean = 2.78, β = 0.45), and neighborhood social composition (mean = 3.06, β = 0.29) significantly impacted community development (mean = 3.42) in the study area. Conversely, social bridging (mean = 2.65) and social cohesion/trust (mean = 2.35) did not show significant impacts, suggesting that while moderate levels of trust and safety existed, they did not drive development alone. These findings were aligned with literature emphasizing strong intra-community bonds and effective external linkages while challenging assumptions about the universal significance of social bridging and trust. Recommendations include enhancing social bonding initiatives, strengthening social linking, addressing neighborhood social composition, re-evaluating social bridging strategies, and reassessing efforts around social cohesion/trust. Future research should explore these dynamics, particularly through longitudinal studies and comparative analyses to develop a nuanced understanding of the role of social capital in sustainable community development.

Key terms: Social capital, social capital bonding, social capital bridging, social capital linking, social cohesion, neighborhood social composition, community development

1. INRODUCTION

Social capital, a concept widely explored in sociology and related disciplines, refers to the social networks, relationships, and norms that facilitate cooperation and mutual support within a community (Putnam, 2000). It encompasses the trust, reciprocity, and shared values that bind individuals together and contribute to the overall well-being of the community (Coleman, 1988). Social capital operates at both the individual and collective levels, influencing the interactions and relationships that shape community life.

In this study, the effect of three major independent variables: social capital, social cohesion, and neighborhood social composition were assessed on the dependent variable: community development. Social capital, according to Aldrich & Meyer (2015), refers to the networks of relationships and resources embedded within a community, which facilitate cooperation, trust, and collective action.

It encompasses both bonding social capital, which refers to ties within homogeneous groups, and bridging social capital, which connects diverse groups (Hawkins & Maurer, 2010). Social capital plays a crucial role in community development by enhancing resilience, facilitating resource mobilization, and fostering social cohesion (Carpiano, 2007). Social cohesion reflects the degree of connectedness and solidarity among members of a community, characterized by trust, shared norms, and mutual support (Friedkin, 2004).

It contributes to social stability, civic engagement, and the well-being of individuals and communities (Kim et al., 2020). Strong social cohesion is associated with lower crime rates, better health outcomes, and higher levels of community resilience (Helliwell et al., 2018). Neighborhood social composition refers to the demographic and socio-economic characteristics of residents within a specific geographical area (Sharkey, 2018). It includes factors such as income inequality, racial segregation, and residential mobility, which influence social interactions, access to resources, and community dynamics (Chetty et al., 2016).

Understanding neighborhood social composition is essential for identifying social disparities, promoting social inclusion, and designing targeted interventions (Sampson, 2019). Social capital plays a crucial role in fostering collaboration and mobilizing resources. High levels of social capital within a community are associated with increased civic engagement, improved access to information, and enhanced problem-solving capabilities (Woolcock & Narayan, 2000).

The urban landscape is undergoing rapid transformations globally, and understanding the dynamics of community development within specific urban areas is paramount for sustainable urbanization. *Sheger* City, particularly in the *Furi* sub-city area, stands as a microcosm reflecting the complexities and challenges associated with urban community development. Green & Haines (2012) stated that community development is a process aimed at improving the well-being of individuals and groups within a community by enhancing social, economic, and environmental conditions. It involves empowering community members, building local capacity, and fostering collaboration among stakeholders to address shared challenges and pursue common goals.

Understanding the role of social capital in this context is crucial for identifying pathways to enhance community development. Studies have shown that high levels of social capital can positively impact various aspects of community life, such as health, education, economic, political cultural and economic well-being (Bourdieu, 1986; Woolcock & Narayan, 2000). This study focused on economic, political and cultural aspect of community development.

Examining the interplay between social capital and community development in *Sheger* City, *Furi* sub-city area shed light on the intricate relationships that shaped the urban fabric. As urbanization intensifies, there is a growing need to foster community cohesion and resilience. This study contributed to the academic literature by providing empirical insights into how social

capital operates in an urban context, offering valuable knowledge for policymakers, community leaders, and researchers aiming to enhance community development strategies in rapidly evolving urban environments.

2. Statement of the problem

According to Dhesi(2000), social capital is not a single entity but rather a collection of distinct entities with a shared attribute: they are all composed of some elements of a social structure and they enable specific behaviors of those who are part of the structure. Moreover, Grootaert and Bastelaer (2002) described social capital as "*institutions, relationships, attitudes, and values that govern interactions among people and contribute to economic and social development*". According to the criteria given previously as well as other ones, the word "social capital" was divided into the following categories for this study: (1) The levels of economic structure that social capital influences, which are classified as macro (national), meso (regional and communal), and micro (household or individual), and (2) The bonding, bridging, and linking types, which are predicated on the ways in which social capital operates inside a community or among many groups of people and/or organizations in other communities.

In the urban landscape of *Sheger* City, particularly within the *Furi* sub-city area, the dynamics of community development were subjected to a myriad of influences. One crucial factor that warrants investigation was the role of social capital in shaping the developmental of trajectories of this community. Despite the growing recognition of the importance of social capital in fostering cohesive and resilient communities (Putnam, 2000; Woolcock & Narayan, 2000), there is a dearth of empirical researches examining its specific impact on community development within the unique context of *Sheger* City.

This study examined the relation between social cohesion, social capital, and community development action. Literature review found three broad approaches regarding social capital effects on community development. First, examined as the outward representation of social support and social leverages, individual-level social capital (Briggs 1998; Keyes et al., 1996). Second, a number of previous studies found that the level of social cohesion at the neighborhood level was associated with local development efforts (Fukuyama, 1995; Knack, & Keefer, 1997; Pargal et al., 2002). Third, a group of development case studies focused on the synergy effects between bottom-up and top-down levels of social capital and social cohesion, arguing that a failure in either level may preclude the process of community development (Evans, 1996; Ostrom, 1996; Woolcock, 2002). Unfortunately, despite decades of research using a variety of methods, the topic of whether social capital influences community development remained unanswered. The main source of this is disagreements in theory and methodology. Therefore, one of the goals of this research was to narrow this gap by making some more study in this area.

The problem at hand was multifaceted. Firstly, there was a need to understand the current state of social capital within the *Furi* sub-city area. Were there robust social networks, high levels of trust, and shared values among community members? Additionally, exploring how different social groups within this area contributed to and benefited from social capital was essential for a nuanced understanding of community dynamics. Secondly, despite the theoretical underpinnings suggesting a positive correlation between social capital and community development (Coleman, 1988; Bourdieu, 1986), it remained unclear how social capital operates within the specific urban context of *Sheger* City. Was social capital a driving force behind community initiatives, resource mobilization, and problem-solving endeavors?

Furthermore, the problem statement extended to the identification of potential challenges that may hinder the effective utilization of social capital for community development in *Furi* sub-city. Rapid urbanization, demographic shifts, and socio-economic disparities could pose obstacles to the formation and utilization of social capital. Lastly, the existing gap in literature highlighted the necessity for a study that did not only explore the relationship between social

capital and community development but also provide practical insights for policymakers and community leaders in *Sheger* City.

This research tried to address the broader issues of community development, community resilience, and social cohesion within the specific context of *Sheger* City's *Furi* sub-city area. By examining the role of social capital in community development, the study aimed to contribute valuable knowledge that could inform targeted interventions, policies, and community-driven initiatives to enhance the overall well-being of the residents in *Furi* sub-city.

3. Research Objective

The main objective of this research was to assess the role of social capital on community development: The case of Sheger city, *Furi* sub-city, Oromia.

4. Research Methodology

In this study the researcher explored into the systematic approach employed to investigate the intricate relationship between social capital and community development within *Furi* sub-city. The methods and methodology outlined herein served as the foundation for understanding the mechanisms through which social capital influenced various aspects of community development, including social cohesion, and neighborhood social composition.

Through a mixed-research method, this study aimed to capture the richness and complexity of social interactions, networks, and norms within the community. By employing rigorous methodological procedures, including sampling techniques, data collection methods, and analytical frameworks, this chapter established the framework for conducting a comprehensive analysis of social capital dynamics and their implications for community development initiatives in *Furi* sub-city.

5. Results and Discussion

This study aimed to determine the role of social capital on community development in case of *Furi* sub-city administration of Sheger city. To do so, as it is revealed in the literature part of the study, determinant factors, such as social bonding capital, social bridging capital, social linking capital, Social cohesion and Neighborhood social composition were measured in contrast to community development on the study area.

In this study, it was found that social bonding was one of the significant factors that affected community development. This outcome aligned with numerous recent studies that underscored the importance of strong interpersonal relationships and community cohesion. For instance, a study conducted by Putnam (2000) highlighted that communities with robust social bonding capital tend to have higher levels of mutual support, which enhances collective efficacy and community resilience. Similarly, the research by Woolcock and Narayan (2000) emphasized that social bonding capital facilitates the sharing of resources and information among community members, fostering an environment conducive to collective action and development.

Contrastingly, some studies present a nuanced view of social bonding capital's role. While acknowledging its benefits, these studies point out potential limitations. For example, Portes (1998) noted that excessive bonding within homogenous groups might lead to exclusionary practices and limit access to broader networks and resources, potentially hindering overall community development. This perspective suggests that while social bonding capital is crucial for fostering close-knit communities, it must be balanced with bridging and linking social capital to avoid insularity and ensure access to diverse opportunities and external resources. This nuanced view helps understand the dual nature of social bonding capital, emphasizing its benefits

while cautioning against its potential drawbacks if not complemented by other forms of social capital.

Furthermore, a comparative analyses with the studies in different geographical contexts revealed that the impact of social bonding capital may vary depending on cultural and socio-economic factors. For example, in their research on rural communities in Sub-Saharan Africa, Krishna and Shrader (1999) found that social bonding capital played a pivotal role in community mobilization and development efforts, and this is similar to the findings in *Furi* sub-city. However, in more urbanized and diverse settings, the relative importance of social bonding capital might differ, with greater emphasis placed on bridging and linking capital to navigate complex social landscapes (Lin, 2001). These comparisons underscored the importance of context in evaluating the role of social bonding capital in community development, suggesting that while its benefits were widely recognized, its application and impact may vary across different community settings.

However, the study did not find a significant impact of social bridging on community development, which was consistent with the results of other studies in the same field. For instance, Burt (2005) argued that while bridging social capital that can provide access to new information and resources, its impact on community development is contingent on the strength and quality of the bridging ties. In many cases, superficial connections across diverse groups may not translate into meaningful collaborations or tangible benefits for community development. This perspective suggested that simply having a diverse network is insufficient without strong, functional relationships that facilitate effective cooperation and resource sharing.

Contrastingly, other studies found that social bridging capital can be crucial in different contexts, particularly in heterogeneous communities where diverse connections are necessary for accessing external resources and opportunities. For example, Putnam (2000) emphasized that communities with substantial bridging capital are better positioned to leverage external support and adapt to changing socio-economic environments. In urban settings, bridging social capital often plays a vital role in fostering innovation, resilience, and inclusive growth by connecting disparate groups and enabling the flow of ideas and resources across social divides. This view highlights the potential of bridging social capital to contribute to community development, especially when complemented by strong bonding and linking capital.

Moreover, the context-specific nature of social bridging capital impact is evident in the studies from various geographical and socio-economic settings. Woolcock and Narayan (2000) noted that in some developing regions, bridging social capital is essential for linking communities to external agencies and markets, which can drive development outcomes. However, in the context of Sheger city, *Furi* sub-city, the finding that bridging capital was not a significant factor that may reflect a unique community dynamic where intra-community cohesion and localized support networks (bonding capital) played a more critical role. This suggested that the effectiveness of social bridging capital in fostering community development may depend heavily on the existing social structure and the specific needs of the community, reinforcing the idea that one-size-fits-all approaches to social capital and development are inadequate.

The discrepancy between the findings from Sheger city, *Furi* sub-city communities and other studies might be due to the specific socio-economic and cultural context of the study area. In the Sheger city, *Furi* sub-city communities, the quantitative data revealed low levels of interaction and comfort in reaching out to people from different backgrounds (mean values around 2.32 to 2.45). This indicated that social bridging capital was relatively weak in this community.In addition, Woolcock & Narayan (2000) said that the impact of social bridging may be overshadowed by more immediate concerns, such as poverty and inadequate infrastructure, which required more direct forms of intervention and support. Moreover, the effectiveness of bridging social capital might be hampered by the existing social divisions and a lack of institutional support to facilitate meaningful connections across diverse groups.) This suggests

that in contexts where basic needs and strong institutional frameworks are lacking, the potential benefits of social bridging may not be fully realized.

Thirdly, the study found that social linking, one of the determinant factors examined, significantly influenced community development in the study area of Sheger city, *Furi* sub-city communities. This outcome is aligned with numerous recent studies that emphasize the importance of social linking capital, which involves connections between individuals, groups and institutions or individuals in positions of power. For example, Szreter and Woolcock (2004) argued that linking social capital is crucial for accessing resources, information, and support from formal institutions, which can enhance community development efforts. This form of social capital facilitates the flow of critical resources and support needed for community initiatives, making it a pivotal element in fostering development.

Contrastingly, some studies suggested that while social linking capital is important, its effectiveness can vary based on the quality and nature of the relationships between community members and external institutions. According to Krishna (2002), the mere presence of linking capital does not guarantee positive outcomes unless there is mutual trust and responsiveness between the community and these institutions. In some cases, communities with high levels of linking capital may still struggle if the institutions they are connected to are inefficient or corrupt. This perspective highlights that the impact of linking social capital on community development is not solely dependent on the existence of connections but also on the effectiveness and integrity of the institutions involved.

The study found that social cohesion or social trust did not significantly affect community development in the study area of Sheger city, *Furi* sub-city communities. This result echoed recent studies that cast doubt on the simple idea that strong social cohesion automatically improved communities. For instance, a study by D'Hombres et al. (2010) in Eastern European countries found that while social trust is important, its direct impact on economic development is less significant than other forms of social capital like networks and institutional trust.

The discrepancy between these findings and the results from the Sheger city, *Furi* sub-city communities study might be due to contextual factors. In the study area, the lack of significant impact of social cohesion on community development could be attributed to several reasons. Firstly, the existing social trust might be too low to generate substantial collective action. The quantitative data revealed low levels of comfort in sharing personal information and seeking help from neighbors, indicating weak social cohesion (mean values around 2.04 to 2.33). Secondly, the community might face more pressing structural issues, such as poverty, unequal income distribution, and inadequate resources, which overshadow the potential benefits of social cohesion. In such environments, even strong social ties might not be sufficient to overcome these systemic barriers to development. This perspective is supported by Bjørnskov (2006), who found that the impact of social trust on development is mediated by the broader socio-economic context.

Lastly, neighborhood social composition is one of the significant factors that affect significantly community development in the study area. This finding is aligned with the recent studies that emphasize the importance of neighborhood characteristics in fostering or hindering community development. For instance, Sampson et al. (2002) highlighted that neighborhoods with a high level of social cohesion and trust, combined with a diverse socio-economic composition, are better positioned to mobilize resources and implement community initiatives. They often exhibit stronger social networks and greater collective efficacy, which contribute positively to community development.

Conversely, some studies offer a more nuanced view, suggesting that while neighborhood social composition is important; its impact can vary significantly depending on other contextual factors. Browning, Cagney, and Wen (2003) argued that the benefits of a diverse neighborhood

composition can be mitigated by underlying socio-economic inequalities and lack of institutional support.

The specific context of Sheger city, *Furi* sub-city communities provided additional insights into as to why neighborhood social composition significantly affected community development. The quantitative data indicated that high levels of concern about poverty and income distribution, with mean values suggestedserious issues in these areas.

The findings of the study on *Furi* sub-city resonated with broader global concerns about the erosion of social capital and the rise of individualism. The community's challenges in fostering deep trust and mutual support were indicative of a larger trend where social cohesion wasweakening. This decline in social cohesion was attributed to several factors, including increased urbanization, economic inequalities, and cultural diversities that, while enriching, also pose integration challenges. The data of this study showed neutral to low trust levels and reluctance to engage deeply with others aligned with observations in other parts of the world where social capital was seen to be deteriorating, driven by socio-economic divides and the impacts of the pandemic.

6. Summary of the Major Findings, Conclusions, and Recommendations

6.1. Introduction

This study presents the findings, conclusions, and recommendations derived from the data discussed in the preceding chapters, which reflect the current situation on the ground. It addresses the main objective of this study, i.e.   determining the role of social capital in community development in *Furi* sub-city. It examined the relevant literature, and analyzed the collected data from reliable sources and intended audiences, and drew meaningful conclusions and proposed actionable recommendations based on the research objectives and questions.

6.2. Summary of the Major Findings

- The study revealed a rich fabric of social structures. While a majority being married suggests families are key to social connections, a significant number of singles highlight the importance of fostering social networks beyond families. The presence of divorced and widowed individuals further emphasizes the need for inclusive community support, ensuring everyone has access to resources and social connections that contribute to an active and well-connected community.
- The study found significant portions (69%) of the community are relatively new residents, having lived there for less than 8 years. This trend, likely due to factors like urbanization, might influence social capital development as strong connections take time to build. However, it also creates an opportunity for community initiatives to focus on integrating newcomers and fostering social ties to strengthen the overall social fabric.
- Despite a Muslim majority (60%), the study revealed significant religious diversity in the community. This mix, with Orthodox, Protestant, and other faiths present (40%), highlights the potential for both strong internal bonds within religious groups and bridging social capital through interfaith cooperation. Understanding these dynamics is crucial, as religious affiliation can influence social networks, trust, and participation.
- The study found a vibrant linguistic mix in the community, with Afan Oromo being the most common tongue (32%) followed by Amharic, Guragigna, Siltigna, and others. This diversity reflects the multicultural character of the area. It's important because language shapes social connections and communication.
- The study looked at family size (household members) to understand social capital. Most households are medium-sized (4-6 members), suggesting this might be the typical family structure. Larger families often have strong internal bonds that can benefit the community, while smaller families may rely more on external social networks. This

- variation means community development efforts should consider different household needs to ensure everyone has opportunities to build social capital and contribute to the community.

- With regard to social bonding, the study found a mixed way regarding social connections in the community. While people generally agree they can rely on neighbors for help (mean 3.33) and participate in social activities (mean 3.63), there's hesitation with deeper trust. People are somewhat neutral about sharing personal problems (mean 2.93) and relying on community support during difficulties (mean 2.92). This suggests frequent social interactions but a lack of deeper connections. Cultural reasons, past experiences, or a lack of community initiatives could be behind this. Building trust and fostering mutual support might be key to strengthening social bonds and improving community development.

- Regarding social bridging, the study indicated that a disconnect in the community regarding interaction with diverse backgrounds. While people generally agree on the value of understanding different perspectives (mean 3.81), there's a lack of actual interaction and trust (mean 2.65). People rarely interact with those different from them (mean 2.32) and hesitate to seek help outside their circles (mean 2.39). Trust and collaboration across groups is also low (mean 2.28). This suggests a missed opportunity for community development. Efforts should focus on creating a more inclusive environment that bridges social divides and builds bridges among different community groups.

- With respect to social linking, the research found an unenthusiastic response regarding the community's connection with outsiders. People see value in collaborating with external organizations (mean 4.47) but lack confidence in approaching them (mean 2.13) or local government (mean 2.08). There's also a sense that local government isn't responsive (mean 2.10). This suggests another missed opportunity. Building trust and creating easier connections with external organizations and local government could significantly boost the community's social capital and development.

- Concerning social cohesion/trust, the study found that the community lacks strong social cohesion (mean 2.35). People are generally neutral about trusting others to keep promises (mean 3.11) but less trusting when it comes to sharing personal information (mean 2.04) or helping others (mean 2.25). Feelings of safety (mean 2.33) and confidence in working together (mean 2.03) are also low. This suggests a weak foundation of trust and cooperation. Building trust, respecting privacy, and fostering collaboration through community programs could significantly strengthen social cohesion and benefit overall community development.

- With respect to neighborhood composition, the study revealed several concerns regarding the neighborhood's social makeup (mean 3.06). Poverty is a major issue (mean 4.81) and income distribution is perceived as unfair (mean 1.75). There's discomfort with racial diversity (mean 2.11 for both questions). People are also somewhat transient, with many new families moving in (mean 4.18) and residents considering moving out (mean 4.22). Finally, the neighborhood is seen as lacking resources (mean 2.25). This mix of poverty, unfairness, racial tension, and lack of resources likely contributes to the desire to leave and undermines a sense of stability and satisfaction. Addressing these issues through targeted programs could significantly improve the neighborhood's social composition and quality of life.

- Concerning community development, the study found a positive outlook on cultural preservation within the community (mean 4.18) with high participation in cultural events (mean 3.42) and recognition of its value (mean 4.41). However, support for cultural activities from local organizations is lacking (mean 2.45). Economic collaboration and political engagement are areas for improvement (mean 2.81 and 2.11 respectively), with residents feeling they have little influence (mean 2.29). To strengthen the community's development, efforts should focus on increasing collaboration on economic and political issues, while also improving local support for cultural activities.

- This model summary of the study in the table given above shows that the coefficient of determination (R2), using all the predictors simultaneously, is (R²= 0.509) meaning that 50.9% of the variance in community development on the study area can be predicted from predictors while the rest 49.1% is explained by other factors that are not mentioned here. Therefore, this indicates that 50.9% of the variance in community development was explained by the model.
- The study looked at a model to predict how different factors (independent variables) affect community development (dependent variable) in *Furi* sub-city. The results show the model is statistically significant (F=74.570, p=.000). This means the model is very good at predicting how those factors influence how well people develop within the community.
- The p-value of social bonding capital, social linking capital and neighborhood social composition is less than 0.05. This suggests that social bonding capital, social linking capital and neighborhood social composition significantly influence community development in the study area. Further, since its p-value is also larger than 0.05 the constant and the other two predictors were not supported to be included in the model.
- This study found the factors that influenced most community development. social bonding capital, social linking capital, and neighborhood social composition were the ones that have shown significant impact on community development. The regression model is: ***Community development =**0.120x **Social bonding capital** + 0.116x**Social linking capital** + 0.640x **Neighborhood social composition.** According to the model, the Neighborhood social composition (coefficient = 0.640) has the strongest influence, followed by Social bonding (coefficient = 0.120) and Social linking capital (coefficient = 0.116) having a positive impact. Importantly, the study revealed that these social factors (bonding, bridging, and linking capital) don't have the same weight for all community development initiatives, as shown by their varying coefficient values.

7. Conclusions

These findings are aligned with and diverged from the existing literature, provided a nuanced understanding of the role of social capital in community dynamics.

Firstly, the significant impact of social bonding on community development is aligned with the existing literature that highlights the importance of strong interpersonal connections and trust within close-knit groups. In *Furi* sub-city, the high mean scores for dependability and communal support among neighbors supported this view, suggested that intimate connections facilitated community engagement and development activities.

In contrast to this study, social bridging did not emerge as a significant factor which contrasted with some studies that emphasized its role in accessing external resources and fostering innovation (Woolcock, 2001; Szreter& Woolcock, 2004). The relatively low mean scores for interactions and trust among diverse groups in *Furi* sub-city indicated that the community may lack the cross-cutting ties necessary to leverage broader networks for development. This could be attributed to social or cultural barriers that limited interactions between different social groups, highlighted a potential area for community development initiatives to focus on building bridges across diverse groups.

Similarly, social cohesion or social trust was found to be insignificant in impacting community development, which diverged from studies that argued trust was crucial for community cooperation and collective efficacy (Fukuyama, 1995; Putnam, 2000). The low mean scores for trust-related measures, such as sharing personal information and perceived willingness to help, suggest that mistrust among community members could be hindering collective action and mutual support. Local contextual factors, such as historical grievances or socio-economic disparities, might explain this discrepancy by eroding trust and cohesion.

The significant impact of social linking on community development is aligned with the notion that connections between individuals or groups and those in positions of power or authority are crucial for accessing resources and influencing policies (Woolcock, 2001). This finding suggested that empowering communities to build and leverage relationships with external organizations can significantly enhance development outcomes.

8. Recommendations

Based on the findings ofthe study, the following recommendations are forwarded.

Strengthen Social Bonding Capital: The significant impact of social bonding on community development suggests that initiatives should focus on strengthening interpersonal connections within the community. Programs that encourage regular social gatherings, community events, and group activities can help foster a sense of belonging and mutual support among residents.

Facilitate Social Linking Capital: Given the significant role of social linking capital, it is crucial to facilitate connections between community members and external entities, such as government officials, NGOs, and other organizations. Establishing formal channels for communication and collaboration, such as community advisory boards or public forums, can empower residents to voice their concerns and access necessary resources.

Address Socio-Economic Challenges: The findings on neighborhood social composition highlight the importance of addressing socio-economic disparities to promote community development. Targeted interventions to alleviate poverty, improve income distribution, and provide adequate resources and services are essential. Policymakers should prioritize investments in education, healthcare, and infrastructure to enhance the quality of life and economic opportunities for all residents. Initiatives such as microfinance programs, vocational training, and job creation schemes can also be effective.

Promote Inclusive Community Engagement: The study revealed that social bridging and social cohesion/trust are not significantly impacting community development in *Furi* sub-city. To address this, efforts should be made to promote inclusive community engagement that transcends social and cultural barriers. Initiatives that encourage interaction between diverse groups, such as multicultural events and intergroup dialogue sessions, can help build trust and understanding.

Enhance Community Support Systems: The presence of divorced and widowed individuals underscores the need for inclusive support systems that cater to varied marital statuses. Establishing support groups, counseling services, and assistance programs for these individuals can help integrate them into the community and ensure they have access to necessary resources.

Monitor and Evaluate Community Development Initiatives: Regular monitoring and evaluation of community development initiatives are essential to ensure their effectiveness and sustainability. Implementing a comprehensive evaluation framework that includes feedback from community members can help identify areas for improvement and adjust strategies accordingly.

9. Implications for future research

Based on the findings of the research, the following implications for future research are suggested:

Explore Factors Influencing Social Bonding and Linking: Since social bonding and linking were found significantly impactful on the community development, future researches should delve deeper into understanding what specific factors within these types of social capital are most influential.

Investigate Barriers to Social Bridging: Given that social bridging did not significantly impact community development in this study, future research should explore the barriers preventing effective bridging. Researchers could look into issues, such as social segregation, cultural differences, or lack of opportunities for diverse groups to interact.

Assess the Role of Social Cohesion and Trust: Since social cohesion and trust were not found significantly influence community development, it would be valuable to explore why this is the case in *Furi* sub-city. Future research could examine the specific aspects of trust and cohesion that are lacking or ineffective and how these might differ from other contexts where they have a positive impact. Comparative studies with different communities could provide insights into these dynamics.

Longitudinal Studies on Social Capital Impact: Conducting longitudinal studies could provide a deeper understanding of how social capital affects community development over time. By tracking changes in social capital and community development indicators over several years, researchers can identify long-term trends and the sustainability of social capital's impact.

Evaluate Policy and Program Interventions: Future researches should also focus on evaluating the effectiveness of various policy and program interventions aimed at enhancing social capital. By assessing which initiatives work best in improving social bonding, linking, and bridging, researchers can provide evidence-based recommendations for policymakers and community leaders.

Expand Research to Diverse Communities: To generalize the findings, similar studies should be conducted in different geographic locations and among various communities. Comparing results across different settings can help identify universal principles of social capital's role in community development and highlight context-specific factors.

Explore Factors Influencing Social Bonding and Linking: Since social bonding and linking were found to significantly impact community development, future researches should delve deeper into understanding what specific factors within these types of social capital are most influential. Studies could investigate how different types of activities, cultural practices, or demographic variables affect the strength of social bonds and links in the community.

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Expand Research to Diverse Communities: To generalize the findings, similar studies should be conducted in different geographic locations and among various communities. Comparing results across different settings can help identify universal principles of social capital's role in community development and highlight context-specific factors.

Explore Factors Influencing Social Bonding and Linking: Since social bonding and linking were found significantly impact community development, future researches should delve deeper into understanding what specific factors within these types of social capital are most influential. Studies could investigate how different types of activities, cultural practices, or demographic variables affect the strength of social bonds and links in the community.

Investigate Barriers to Social Bridging: Given that social bridging did not significantly impact community development in this study, future research should explore the barriers preventing effective bridging. Researchers could look into issues such as social segregation, cultural differences, or lack of opportunities for diverse groups to interact.

Assess the Role of Social Cohesion and Trust: Since social cohesion and trust were not found significantly influence community development, they would be valuable to explore why this is the case in *Furi* sub-city. Future researches could examine the specific aspects of trust and cohesion that are lacking or ineffective and how these might differ from other contexts where they have a positive impact. Comparative studies with different communities could provide insights into these dynamics.

Longitudinal Studies on Social Capital Impact: Conducting longitudinal studies could provide a deeper understanding of how social capital affects community development over time. By tracking changes in social capital and community development indicators over several years, researchers can identify long-term trends and the sustainability of social capital's impact.

Evaluate Policy and Program Interventions: Future researches should also focus on evaluating the effectiveness of various policy and program interventions aimed at enhancing social capital. By assessing which initiatives work best in improving social bonding, linking, and bridging, researchers can provide evidence-based recommendations for policymakers and community leaders.

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Challenges and Opportunities of Hiring Young Women Employees in Technology Industries: The Case of Walia Technologies

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Abstract

The underrepresentation of young women in the technology industry remained a persistent problem. Despite persistent underrepresentation, there was a growing acknowledgment of the need to empower women in the technology industry due to the value of diversity. Walia Technologies addressed this inequality by hiring primarily young women and empowering them in the industry. Understanding the challenges and opportunities connected with this recruiting approach was critical for improving the company's effectiveness and competitiveness in the market while empowering young women in technical industries. Through a descriptive research design, this study employed a mixed-research method, i.e. combined qualitative and quantitative. The study assessed hiring practices, challenges faced, opportunities, and the perceptions thatyoung women employees had. Key findings revealed that while Walia Technologies was committed to recruiting and supporting young women employees, significant challenges persisted. These included issues with gender diversity, lack of experience, workload balance, high turnover rates, the lack of young women in the field, and societal biases. These challenges significantly impacted innovation and organizational goals. However, opportunities like fresh perspectives, alignment with company policies and culture, and gaining financial advantages through hiring practices were identified. To address these challenges, the study recommends enhancing feedback mechanisms, diversifying recruitment approaches, establishing partnerships with technology universities, and strengthening mentorship programs. Additionally, supporting work-life balance and fostering diverse leadership were crucial for sustained success and inclusivity. This research contributes to understanding the complexities of gender-based hiring in technology and provides recommendations for future studies to explore broader demographics and longitudinal impacts.

Keywords: Young Women Employment, Practice, Challenges, Opportunities, Perception, Underrepresentation in STEM Education

1. Introduction

The technology industry is crucial for driving global innovation and economic advancement. Despite progress, there remains a significant gender gap, especially in the representation of young women (Kuschel et al., 2020). Historically, the technology sector has been dominated by men, as noted by Kenny and Donnelly (2020). Recent studies from the United Nations Development Program (UNDP) highlight women's underrepresentation in the global tech workforce, with only 28% in professional roles and even lower in regions like Sub-Saharan Africa (UNDP, 2019). UNESCO data further shows that women hold just 26.7% of tech-related jobs, underscoring the need for concerted efforts to address these disparities (Sousa, 2024).

The underrepresentation of young women in the technology sector is a complex issue that requires announced examination. Numerous studies underscore the persistent challenges faced by women in pursuing careers in technology (Diekman et al., 2010). Gender biases and societal stereotypes continue to influence educational and career choices, steering young women away from technology-related fields (Lewis et al., 2017). This societal influence further exacerbates the gender gap in the technology workforce (Wang & Degol, 2017).

However, there is a growing recognition of the need to empower women in the technology industry (Orser et al., 2012). Because of their fresh perspectives creativity, dedication, and attention to detail, which align with company policies and cost-effective salary structures (Lechman, 2021). Moreover, empowering young women can lead to improved project outcomes and overall organizational benefits.

Furthermore, the research conducted by Hunt et al. (2018) suggested that companies with diverse workforces tend to achieve better financial performance compared to their peers. However, initiatives aimed at diversity, such as the exclusive hiring of young women, can introduce challenges like tokenism, workplace isolation, and pressure to prove one's abilities, high turnover rates, gender bias, limited perspectives, maternity leave, workload balance and issues related to customer or societal acceptance. These challenges have the potential to undermine the overall effectiveness of the organization (Chakravarty et al., 2017).

Walia Technological PLC is a dynamic and forward-thinking IT solutions provider recognized for providing creative and high-quality technological services. With a focus on empowering women in the technology industry, the company primarily recruited young women in technology. This approach had enabled Walia Technology PLC to establish itself as a known and helpful company in the technology market. However, this method had its challenges and opportunities for the organization. The researcher's observations at Walia Technologies highlighted practical gaps in understanding the short-, mid-, and long-term issues of recruiting primarily young women. This underlined the need for additional study to fill these gaps and inform more effective recruitment efforts in the technology sector.

In the short term, having mostly young women in the workforce could cause a few problems. Firstly, without guidance from more experienced women, there might be gaps in knowledge, and missed chances, and people might only think in their own small groups. Young employees might find it hard to find experienced mentors to help them move forward in their careers. This could mean it takes longer for them to learn and might make it harder to do projects well. Also, because the team does not have much work experience, they might struggle with solving complicated problems, managing risks, and knowing what challenges might come up in the future. This could lead to projects taking longer, needing to be redone, and missing deadlines. Sometimes, young moms taking time off for maternity leave or trying to balance work and life might mean there aren't enough people to do tasks, which could affect how the team works together, how happy they are, and how well the project is going. Also, if young professionals are leaving a lot to try different jobs, it can cost a lot to find new people and get them settled in, which could disrupt how the team works and mean losing knowledge about how things are done.

Transitioning to the medium term, not having strong mentors around for a long time can lead to problems in the future. It might mean that talented people donot get better, leaders aren't developed properly, and new ideas don't come up as much, which could make it hard for the company to change and compete with others. The lack of experience in the team might mean they keep doing things the same way, struggle with new problems, and find it hard to grow when they need to, which could make it harder for the company to keep up with changes in the market. If issues like maternity leave aren't dealt with well, it could make people feel tired and less interested in their work, and they might leave more, which would mean less work gets done, people aren't as happy, and the company might not look as good to others. And if lots of people keep leaving, it's hard for the company to keep important knowledge and skills, which could make it hard for them to stay ahead of the competition, come up with new ideas, and be successful in the future.

In the long term, not having good mentors could mean that chances to make new leaders and think of new things are wasted, which could mean the company doesn't grow as much, can't compete as well, and finds it hard to keep the best people working for them. If the team doesn't have a variety of experiences, they might not know about new technologies or trends in the market, which could stop them from growing and being as competitive. If issues like maternity leave and work-life balance aren't handled well, it could mean that women get paid less, fewer women are in charge, and people don't see the company as a good place to work for everyone. This could make it tough to get and keep really talented women, which could make it hard for the company to include different people and be successful. Lastly, if lots of people keep leaving, it's hard for the company to keep important knowledge and skills, which could make it hard for them to stay ahead of the competition, come up with new ideas, and be successful in the future.

Previous researchshowed that diversity boosts innovation and productivity. However, there hasn't been enough study on how exclusively hiring young women in IT affects companies. This study aimed to fill that gap by looking at Walia Technology PLC, a company that only hires young women in its IT roles. By exploring what worked well and what challenges they faced. This research aimed to give useful insights into whether or not this approach was effective and practical in the technology industry.

2. Methodology

2.1 Research Design and Approach

The study employed a descriptive research design aimed at thoroughly exploring the challenges and opportunities involved in recruiting young women within the technology sector, particularly focusing on Walia Technologies. This approach enabled a systematic and organized examination, provided comprehensive insights into the specific challenges and opportunities faced by Walia Technologies in employing young women in the technology field. Moreover a mix-research method was used. Qualitative research formed a central aspect, aimed to delve into individual's experiences, thoughts, and viewpoints regarding the challenges and potentials associated with recruiting young women in the technology sector. Quantitative research method offered a systematic and structured approach to analyzing numerical data pertinent to the study.

2.2 Sample Size and Sampling Technique

Walia Technologies employed 291 technical staff, 42 administrative staff, and 19 project management staff, for a total of 352 employees. For this study, the population sample size was determined using Yamane's 1973 approach. The sample size for the given population (352) at a 5% margin error and a 95% confidence level is 187.

$$n = \frac{N}{1+N(e)^2}$$ Where, **N**=Target Population

n= required sample size

e = the level of precision

$$n = \frac{352}{1+352(0.05)^2} = 187$$

2.3. Data Sources and Types

The study used both primary and secondary data to construct a thorough picture of the current situation while analysing the challenges and opportunities of employing young women in the technology industry. Primary data collection included surveys and interviews with current young women employees, industry experts, and senior management to better understand the challenges and potential of employing young women in the technology industry. Secondary data were gathered throughreviewing previous studies, publications, and statistics on gender diversity in the technology sector.

3. Results and Discussions of the Study

The response rates for the research study were conducted with a sample size of 187 individuals. Out of the total sample size of 187 individuals, 184(98.4%) respondents completed and returned the questionnaires. However, three (1.6%) respondents did not return the questionnaires.

3.1 Demographic Characteristics of the Respondents

Among the respondents, the majority of employees were women. This could be attributed to the company's hiring practices, which prioritized the recruitment of women. Out of the 184 total respondents, a substantial 175 individuals identified as women. Concerning the age distribution, the majority of the respondents werebetween 20 to 30 years old, representing 96.3% of the sample. Most respondents had 1-3 years of working experience, which represents 62% of the sample.

3.2 Descriptive Statistics

3.2.1 The Extent of Hiring Young Women Employees in Walia Technologies

Based on the descriptive statistics resulting from the survey, the analyses of Walia Technologies' efforts to support young women in technology industry revealed a generally positive outlookalthough some areas required attention. The company which actively sought for qualified young women candidates for open positions strongly agreed, with a mean value of 4.20, reflecting effectiveness. This was aligned with a research by Dutz (2022), which emphasized that targeted recruitment can significantly enhance gender diversity in the workplace. Furthermore, the provision of support and resources for professional development, with a mean value of 3.94, indicated that Walia Technologies invested substantially in the career growth of its women employees, echoing findings by (Holtzblatt & Marsden, 2018) that such investments are critical for retaining women in technological fields.

However, the promotion of women as role models in leadership positions, scoring a mean value of 3.08, suggests room for improvement. This is crucial, as Latu et al., (2013) argued that visible women role models in leadership are essential for inspiring young women employees. celebrates the achievements and contributions of young women employees received a mean value of 3.89 and Young women employees feel valued and respected in their roles with a mean value of 3.74, ndicating a positive environment of recognition, which is supported by the findings from Henryhand (2009) on the importance of acknowledgment in the employee satisfaction.

Despite these positive indicators, the company's feedback mechanisms, with a mean value of 3.05, highlighted potential areas for improvement. These scores suggested that young women might not feel fully respected or heard; an issue also noted in the studies by Martin & Barnard (2013) on the challenges faced by women in male-dominated fields. Lastly, the overall commendation of Walia Technology practices, with a mean value of 3.95, underscored its commendable efforts in fostering an inclusive environment, though continuous efforts were necessary to address the highlighted areas of concern.

3.3.2. The Challenges that Walia Technologies Faces in Recruiting Exclusively Young Women Employees in Technology

The study revealed several challenges that organizations, including Walia technologies, faced when focusing on hiring young women in the technology sector. One primary challenge was the persistent under-representation of young women in stem education, particularly in technology-related fields. This issue was supported by a mean value of 4.15 (from the result of the study, question ch2), indicating agreement among the respondents. The lack of women in technology education significantly limited the available talent pool, necessitating proactive measures, such as scholarships and targeted recruitment campaigns to attract and retain qualified women candidates. This is aligned with the findings by Kuchynka et al. (2022), who emphasized the importance of addressing educational disparities to improve gender diversity in STEM fields.

Furthermore, the lack of gender diversity within the company itself posed significant challenges for innovation and idea generation, as reflected by a mean value of 4.29 (from the study result, question ch1), indicated a strong agreement among respondents. Diverse teams are known to produce more innovative solutions as suggested by research from (Lamm et al., 2012)who highlighted the cognitive benefits of diversity in problem-solving.

Another critical challenge was the absence of senior women role models in the technology sector, which impeded the career growth of young women professionals as reflected by a mean value of 4.33 (from the study result, question ch7), indicated a strong agreement among the respondents. This issue was highlighted by the research from Verdugo-Castro et al. (2021), who emphasized the importance of visible women role models in the technology industry for inspiring young women professionals. The company's exclusive focus on hiring young women also presented societal and customer-related challenges, with a mean agreement value of 4.21 (from the study result, question ch3). This finding is supported by studies conducted by Hunt et al. (2015), who discussed the potential drawbacks of exclusive hiring practices and the importance of diversity in meeting the needs of diverse customer bases.

The exclusive focus on young women in technical roles, evidenced by a mean value of 4.11 (from the study result, question ch10), presented significant challenges for Walia Technologies in achieving its organizational goals. This finding is in consistent with previous research, which emphasizesdthe limitations of restricted gender diversity initiatives and the significance of creating a more inclusive workplace environment. According to the research by Kiradoo (2022), firms must stop using tokenistic approaches to diversity and instead concentrate on fostering an atmosphere where people of all genders feel appreciated and supported. A singular focus on any one demographic such as young women working in technology can unintentionally reinforce stereotypes and restrict chances for other marginalized groups. Additionally, the research by Dobusch(2021) highlighted how exclusive focus can lead to a lack of inclusivity and belongingness, impacting collaboration, communication, and organizational success negatively.

Moreover, because the company concentrates on young women, their relative lack of experience in simultaneously addressing project challenges and managing consumer behaviors presents a difficulty in project completion. Effective project management necessitates not only technical expertise but also strong interpersonal skills, which may necessitate additional support and training for young women employees A mean value of 4.15 indicated an agreement among the

respondents on the descriptive statistics of challenges (from the study result, question number ch4). This conclusion emphasized the significance of bridging skill gaps to complete projects on time. It is in consistent with studies by Chuang (2019)which emphasized the importance of comprehensive training programs for young women in the workforce.

The data from the study result, question ch9, indicated an agreement among the respondents with a mean value of 4.18, emphasized the issues of work-life balance concerns among employees after marriage and their possible impact on project schedules and workflow efficiency for the business. This finding lined up with prior research on the association between work-life balance and organizational outcomes.

Furthermore, the organization may see significant turnover rates among young women employees due to a variety of variables, such as improved career chances, maternity leave, and a desire for different work surroundings as a result of their youth and tendency to experiment. This turnover not only disrupts workflow continuity but also raises the company's expenses due to the cost of training new employees, with a mean value of 4.48 and 4.45 which indicated a strong agreement among the respondents on the descriptive statistics of challenges from the study result, question numbers ch6 and ch5, and the research by Mohammed et al. (2016) emphasized the financial implications of the employee turnover for organizations. Their analyses demonstrated how turnover not only increases recruitment and training costs but also lowers productivity and organizational effectiveness.

3.2.3. The Potential Opportunities of Recruiting Young Women Employees in Technology for Walia Technologies

The analysis of Walia Technologies recruitment strategies revealed significant benefits and opportunities associated with hiring young women in technology roles. Descriptive statistics highlighted the agreement among the respondents who believed that this approach broadened the company's talent pool and introduced fresh perspectives, with a mean value of 4.03 (from the study result, question O1). This is supported by the research indicating that diverse teams enhance creativity and problem-solving capabilities (Salazar et al., 2017).

Moreover, young women employees brought unique insights that catered to diverse customer needs; the respondents agreed to a mean value of 4.02 (from the study result, Question O2). Studies by Glass and Cook (2018) highlighted the value that women bring to organizations through their unique perspectives and insights, particularly in industries like technology where customer demographics are varied. Increasing the representation of young women employees in technology roles can contribute to a more inclusive work environment in technology industry; the respondents strongly agreed to a mean value of 3.89 (from the study result, question O3). Studies by Goswami & Goswami (2018) highlighted this inclusivity is crucial for the employee satisfaction and retention, aligning with the findings on the positive impacts of gender diversity in the workplace.

Furthermore, the relatively low salary scales for freshly graduated young women are beneficial for the company; the respondent agreed to a mean value of 4.03 (from the study result, question O4). Recruiting young women employees in technology roles presented an opportunity to enhance the company's positive brand image. The respondent strongly agreed to a mean value of 4.18 (from the study result, question O5). Aligning young employees with company policies and culture was also seen as an advantage when hiring freshly graduated young women for the company; the respondent strongly agreed to the mean value of 4.40 (from the study result, question O6). According to the research by Fasbender et al. (2021), younger employees may be more adaptable and receptive to organizational values and practices

The company's focus on empowering young women aids in acquiring projects was supported by a mean value of 4.02 (from the study result, question O7). This empowerment fostered a sense

of belonging and boosts morale, with a mean value of 4.17 (from the study result, question O8). According to the research by Luu et al.(2019), fostering an inclusive culture is critical for employee engagement and retention.

Recruiting young women in technology positions demonstrated a forward-thinking talent acquisition strategy, with a mean value of 3.89 agreed upon by the respondents. This proactive strategy can increase the company's competitiveness and performance, as evidenced by a mean score of 3.59 (from the study result, question O10). Overall, the respondents believed that Walia Technologies capitalized on the opportunities associated with recruiting young women, with a mean value of 3.89 (from the study result, question O11).

3.2.4. The Perceptions of Young Women Employees at Walia Technologies Regarding Their Experiences of Working in the Technology Industry at an early age

The analyses of Walia Technology strategies of hiring young women in the technology sector revealed the advantages and areas for potential improvement as indicated by the descriptive statistics. Hiring young women created a more supportive and inclusive workplace environment, reflected by a mean value of 4.10 (from the study result, question per1); however, exclusively hiring young women to foster collaboration among employees showed an agreement to the mean value of 3.50 (from the study result, question per2). This suggested that while collaboration might be enhanced within the group, the lack of broader diversity could limit overall team cohesion. Offering job opportunities to young individuals enabled the development of valuable skills and experience, with a high mean value of 4.55 (from the study result, question per3) and this was supported by the findings from Maer-Matei et al. (2019), which highlighted the importance of early career opportunities in skill development and career growth.

On the downside, hiring exclusively young women employees to improve the company's reputation as an equal opportunity employer obtained a mean value of 3.26 (from the study result, question per4). This showed that some may consider the company's sole emphasis as discriminatory which could have an impact on its public image.

Moreover, the respondents agreed that hiring exclusively young women could result in a lack of variety in opinions and ideas with a mean value of 3.95. Hiring men and women was viewed as more advantageous to the company's success with a mean value of 4.11 (from the study result, question per6), emphasized the need of balanced gender representation for organizational effectiveness. Gender disparities in the tech industry through exclusive hiring young women were addressed by a mean value of 3.57 (from the study result, question per7). Despite its intent to rectify historical inequities, this method may not be the optimal long-term solution for fostering inclusivity. The imperative of narrowing the gender gap in STEM fields was paramount as indicated by a mean value of 4.30 (from the study result, question per11), echoed the societal imperative to bolster support for women in tech role.

The significance of role models in the workplace was supported by the mean values of 4.48 and 4.55 for personal and professional development and guidance during uncertainty (from the study result, questions per8 and per9).This concept was reinforced by Sealy & Singh (2010), who emphasized the importance of mentors and role models in women's career progression. Moreover, the presence of role models from various backgrounds fostered creativity and innovation, as evidenced by the mean value of 4.52 (from the study result, question per10). The study found that the company's support for mothers during maternity leave was rated at a mean value of 3.83. Generally, to maximize benefits, Walia Technologies should adopt a more inclusive approach, and emphasize gender diversity to foster a truly inclusive workplace with a broad range of perspectives.

4. Conclusion

In conclusion, Walia Technologies demonstrate as a commendable dedication to recruiting and supporting young women employees, as evidenced by encouraging descriptive statistics. The company excels in attracting and supporting young women candidates. There remains a call for attention in vital areas such as promoting women as role models and refining feedback mechanisms.

Concurrently, the finding of the study identifies challenges inherent in Walia Technologies'exclusive focus on hiring young women for technology roles. These challenges, ranging from under-representation in STEM education, which poses a challenge to hiring more young women per the company's strategy, to the absence of senior women role models, underscore the need for a comprehensive approach. Additionally, the high turnover rate among young women employees due to various reasons poses a significant challenge for the company, resulting in the loss of trained employees and high investment in training replacements. Also, issues with workload balance, social and customer-related challenges for both the company and the employee, relative lack of experience since most of them are young, and the lack of gender diversity affect the company's effectiveness.

The findings of the study reveal that Walia Technology recruitment strategies offer significant benefits and opportunities associated with hiring young women in technology roles. Descriptive statistics highlighted that the respondents agreed this approach broadens the company's talent pool, introduces fresh perspectives, and contributes to a more inclusive work environment in the technology industry. Additionally, aligning young employees with company policies and culture is seen as an advantage when hiring freshly graduated young women. The company's focus on empowering young women not only aids in acquiring projects but also benefits from the relatively low salary scales for these recent graduates.

Yet, amidst these insights, the analyses of young women employees' perceptions at Walia Technologies revealed both strengths and areas for improvement in the company's hiring practices. Descriptive statistics highlighted that the respondents agreed hiring young women creates a more supportive and inclusive workplace environment. However, the lack of broader diversity could limit overall team unity and creativity. Offering job opportunities to young individuals enables the development of valuable skills. The respondents agreed that hiring exclusively young women could result in a lack of variety in opinions and ideas, and it does not improve the company's reputation as an equal opportunity employer. Hiring both men and women is viewed as more advantageous to the company's success. Additionally, the significance of role models in the workplace was highlighted. To maximize the benefits, Walia Technologies should adopt a more inclusive approach, and emphasiz gender diversity to foster a truly inclusive workplace with a broad range of perspectives.

Overall, Walia Technologies have made progress in supporting and hiring young women in technology fields, but ongoing efforts are required to address challenges and improve inclusivity. Ensuring balanced gender representation and cultivating diverse leadership are key to the company's sustained success and support for the advancement of young women in the field.

5. Recommendation

Based on the research findings and conclusions the following thorough recommendations are proposed to address identified challenges and maximize benefits effectively:

- Enhance Feedback Mechanisms: Develop robust feedback mechanisms that allow for constructive feedback from both young women employees and their supervisors. Regular feedback sessions can help address issues such as workload balance, social challenges, and skill development, ultimately reducing turnover rates.

- Diversify Recruitment Approach: Expand the recruitment strategy to include candidates from diverse backgrounds and demographics, beyond exclusively focusing on young women. This can mitigate societal and customer-related issues and enhance external relations and market performance.
- Partner with Top Technology Academy: To address the labor deficit caused by the underrepresentation of young women in the technology field at Walia Technologies, the company should form strategic partnerships with renowned academic institutions specializing in technology. This will motivate young women to participate in the field and also help the company easily access a diverse pool of skilled young women.
- Support Work-Life Balance: Implement flexible work policies, including options for remote work, flexible hours, and parental leave, to support post-marriage work-life balance concerns among young women employees. Supporting work-life balance can enhance job satisfaction and productivity among young women employees, leading to higher retention rates and lower turnover costs.
- Strengthening Role Models and Mentorship Programs: Create formal mentorship programs that pair young women employees with senior women leaders within the organization. These programs provide guidance, support, and opportunities for career advancement. Mentorship programs aid career progression for young women, addressing the absence of senior role models by fostering knowledge transfer and skill development.

Implementing the recommendations given above would help the company realize the full potential of Walia Technologies so that the company could overcome the challenges and tap into the opportunities to attract young women workers to the technology industry to set the scene for a more diverse, inclusive, and successful work place.

6. Recommendation for Future Researchers

Since the idea is complex and the study was conducted on one company, future researches on gender-based hiring in technology should encompass a broader range of demographics, conduct longitudinal studies, and investigate specific skills and experience. Additionally, it should examine how this strategy affects both the company and the individual as a whole.

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Determinants of Food Security in Rural Households: Evidence from East Hararghe Zone, Oromia Regional State, Ethiopia

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Abstract

Ensuring food security was essential for economic growth, poverty reduction, and overall development. Different socio-economic, demographic, infrastructural, and personal factors significantly influenced food security. Limited studies comprehensively measured food security status using multiple food security indicators and failed to assess the determinants using an ordered logit model. This study examined rural household food security using multiple food security indicators (Food Consumption Score (FCS), Household Dietary Diversity Score (HDDS), Reduced Coping Strategy Index (rCSI), and Household Hunger Scale (HHS)) in East Hararghe Zone, Oromia. Secondary cross-sectional data collected by Catholic Relief Service (CRS) from nine woredas were utilize, through a context monitoring tool called Monthly Interval Resilience Analyses (MIRA). Based on the general two-stage sampling technique, 880 households were selected from 44 kebeles. Descriptive analyses and ordered logit regression was employed to analyze the data, assess the determinants of food security. The findings revealed high levels of food insecurity among the respondents across all indicators. Most households scored poor, indicating significant vulnerability. The ordered logit model identified several factors positively influencing food security, including age of household head, residence in highland areas, dependency ratio, and participation in Public Work Productive Safety Net Program (PSNP), livestock ownership, and agricultural training. Conversely, access to credit, engagement in off-farm activities, and larger household sizes were associated with increased food insecurity. This study recommends government and other stake holders to: encourage and endorse Climate Smart Agriculture (CSA), provide farm related activity, initiate and provide food education program, enhance safety net program, strengthen family planning programs, facilitate access to input and resources and educate and monitor finance.

1. Introduction

FAO (2002) defined food security as a state where all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. However, food security is a fundamental aspect of global development; it remains a critical issue globally, particularly in Ethiopia prone to environmental and socio-economic challenges. Different statistical facts show the severity of Ethiopia's food insecurity. Accordin to the study conducted by FAO (2022) indicated that there are 20.4 million individuals experiencing severe food insecurity, marking a rise of 2.4 million compared to the previous year. FEWS NET (2023) estimated the national food assistance requirements in Ethiopia in 2023 have reached unprecedented levels for the second consecutive year. Relief Web (2023) explained Ethiopia's' current food security status as the worst food insecurity in the world, with record-breaking food assistance needs brought on by the effects of a protracted drought and ongoing internal conflict and insecurity. According to CSS (2022), 41.5% of households in Ethiopia experienced moderate food insecurity whereas 9.2% of households experienced severe food insecurity. Out of the 125 nations where there is enough data to generate GHI scores for 2023, Ethiopia comes in at number 101. Ethiopia has a serious level of hunger, scoring 26.2 on the 2023 Global Hunger Index (Global Hunger Index, 2023).

In the case area of nine woredas in East Hararghe, including Babile, Chinaksen, Deder, Fedis, Gursum, Jarso, Melkabelo, Meta, and Midega tola, the food security level was measured using two food security indicators called Food Insecurity Experience Scale (FIES) and Food Consumption Score (FCS) by IMPEL (2022). As per the findings from the FIES, almost all households exhibited signs of food insecurity, with 96.2% facing moderate to severe food insecurity, and 77.7% experiencing severe food insecurity, a rate higher than the average for East Africa. In addition, through the utilization of a FCS, it was determined that the average FCS stands at 20.5. Only 7.8% of households exhibit an acceptable score, while the majority (69.85%) possesses a poor score. As stated by FAO (2023), multiple shocks affecting food availability and access have led to a challenging and deteriorating food security situation. In response to these challenges, numerous studies have investigated the determinants of food security in various regions of Ethiopia. These studies highlight critical factors such as, adverse weather conditions, political instability; economic factors like food price rise and unemployment, weak infrastructure, lack of off-farm income and large family size affect food security negatively. On the other hand, livestock and cultivable land holding, chemical fertilizer application, age and education level of household head, soil conservation practice and access to the nearest market have positive relationship with better food security (Hussein, 2017; Asmelash, 2014; Abafita et al., 2014; Assefa et al., 2022; Yusuf et al., 2021; World Bank, 2023 and Ingram et al. 2008).

However, the studies mentioned above were conducted in the same topic, there were gaps in utilizing more than one indicator for measuring food security. In addition, most of them were used a binary Logit regression model instead of an ordered Logit model. And most of them failed to incorporate the variables PSNP membership type, agro ecological zone and farm-related training. Moreover, there was lack of studies that incorporated all mentioned case areas in single study for the referenced year, 2024. Therefore, this study was conducted to fill the aforementioned research gaps. The general objective of this study was to estimate the level of food security and identify its determinants in East Hararghe Zone, Oromia Reginal State.

2. Material and Methods

2.1. Description of the Study Area

East Hararghe is one of the twenty zones from Oromia Regional State with twenty woredas. According to CSS (2022), the projected population of East Hararghe zone was in 2023 was4,035,797 from which 1,994,580 were females. The population of this study was Resilience

Food Security Activity (RFSA) and PSNP beneficiaries located in nine woredas of East Hararghe Zone called Babile, Chinaksen, Deder, Fedis, Gursum, Jarso, Melka Belo, Meta and Midega Tola.

RFSA or *Ifaa* is CRS led five-year program supported by USAID with goal to brighten the future for poor communities in the Oromia region by reducing intractable poverty, vulnerability, and food insecurity. The goal of the project was to "Improve food security of vulnerable households in the targeted PSNP communities, contributing to a sustained reduction in rural poverty," (CRS Ethiopia, 2022).

2.2. Data, Sampling and Method of Data Analyses

Quantitative secondary data sources were used for this study based on a survey called MIRA. Relevant data were collected using well-structured MIRA questionnaire. MIRA is a context monitoring tool being collected by RFSA. It is an approach to assess shocks and measure households' food security and resilience to shocks. MIRA involves frequent collection of a broad set of information combined with monthly monitoring of food security and shock experience (MIRA, 2022).

The sampling procedure had three steps: determining sample frame, sample size calculation and choosing sampling technique.

Sample Frame: The sample frame included all households in the *Ifaa* operational woredas, which included 304,334 households (1,521,672 people) in 241 Kebeles, nine woredas of East Hararghe zone.

Sample Size Calculation: The first step in determining the sample size consistd of selecting a variable on which to base sample size calculations. The MIRA study tracked four key food security indicators: the Household Dietary Diversity Score (HDDS), Food Consumption Score (FCS), Household Hunger Score (HHS), the Reduced Coping Strategy Index (rCSI). Based on these food security indicators over the life of the project, the calculation for the estimated change in the HHS over the life of the project produced the largest sample size. The second step in determining sample size was to determine the magnitude of the expected effect. The *Ifaa* program estimated a decrease in the mean HHS that was classified as severe (HHS > 3) to moderate ((HHS ≤ 3) over the life of the study. Additional parameters were used to determine the sample size calculation which included the probability of detecting a true change (alpha, set at 0.95), the power to detect if a change had occurred (beta, set at 0.80), a design effect (to compensate for the use of cluster sampling, set at 1.5) and an attrition rate of 10%. Using the formula developed by Food and Nutrition Assistance (FANTA), 880 households (20 household per 44 kebeles) were selected. Yet three respondent households were dropped due to migration and illness from Deder woreda; a total of 877 respondent households were participated in this study.

Sampling Technique: General two-stage sampling technique was used. The primary sampling unit (Kebeles) were selected using systematic probability proportional to size (Systematic PPS) to accommodate the difference in number of kebeles in each woredas. On the other hand, the secondary sampling units (households) were selected randomly.

Both descriptive and econometric analyses were used in this study to analyze the data. Frequency counts and percentages were used in the descriptive analyses. In addition, FCS, HDDS, rCSI and HHS were used to measure food security level. For the econometric analyses, this study used ordered logit model since the dependent variable for the analyses;Food Consumption Score (FCS) was categorical and ordered, namely, poor, borderline, and acceptable with predetermined cutoff points.

Empirical Models

Measurements of Food Security

Food Consumption Score (FCS): According to INDDEX (2022), the FCS collected information at the household level on the variety and consumption patterns of eight food groups over the previous seven days. This information was weighted based on the relative nutritional value of the food groups consumed. This indicator was used as a dependent variable as it accommodated both the household diet and nutritional value of food consumed. Various researchers such us Ryan (2015); Madhav et al (2016); Ndakaza et al (2017); Nurudeen et al (2019); William et al (2019), Mohamed (2019), Antwi et al (2021); Sedighe et al (2023); Habtamu et al (2023) and Bekele et al (2023) also used FCS for measurement of food security as dependent variable. The calculations are stated below.

FCS = (FCS1_days * 2) + (FCS2_days * 3) + (FCS3_days) + (FCS4_days) + (FCS5_days * 4) + (FCS6_days * 4) + (FCS7_days * 0.5) + (FCS8_days * 0.5)

Thresholds: Poor, if FCS≤21, Borderline, if FCS 21-35 and Good/acceptable, if FCS >35

Household Dietary Diversity Score (HDDS): is defined as the number of twelve food groups a household consumes over the past 24 hours (Swindale et al, 2006). The calculation is given below:

HDDS= Sum (A+B+C+D+E+F+G+H+I+J+K+L)

Thresholds: Poor, if HDDS≤2, Borderline, if HDDS 3-4 and Acceptable, if HDD≥5

Reduced Coping Strategy Index (rCSI): The rCSI tracks five behaviors that what people do when they don't have access to enough food. (Maxwell et al, 2008). The calculation is as per below:

rCSI = (rCSI a*1)+(rCSI b*1)+(rCSI c*1)+(rCSI d*3)+(rCSI e*2)

Thresholds: Food secure, if rCSI<4, Moderate/stressed, if rCSI≥4, rCSI≤21and Insecure, if rCSI >21

Household Hunger Scale: According to Ballard et al (2011), the HHS strategy is predicated on the notion that experiencing a lack of food in the home. This indicator measures how hungry the households were for the past month. The HHS is appropriate for assessing severe food insecurity situations, where households experience food deprivation. The calculation is given below.

HHS=(HHS1a*FS) + (HHS2a*FS) + (HHS3a*FS)

Thresholds

Food Secure, if=0, Moderate/Stressed, if=1, 2, Insecure, if=3, 4, Crisis level, if=5, and Catastrophe level, if=6

Econometric Model

Econometric models serve as a tool that precisely identifies the empirical connection between independent and dependent variables. Since FCS was used as a dependent variable for this study and as it has categorical and ordered nature, the ordered logit model was utilized for the econometric analyses. Ordered logistic regression is a method developed to fulfill the goal of modeling the relative frequency distribution of cases across three or more ranked categories of the dependent variable (Y). In contrast with other probabilistic models, ordered logit regression

incorporates the assumption that there is a definite ordering of the categories of the dependent variable. Rare researchers such as Ibrahim et al (2016); Abiodun, (2013); Samia et al (2021); Pipi et al (2023); Aschalew et al (2023) also utilized ordered logit model for such kind of study.

According to Williams (2021), in the ordered logit model, there is an observed ordinal variable, Y. In the ordered logit model, there is a continuous, unmeasured latent variable Y^*, whose values determine what the observed ordinal variable Y equals. The continuous latent variable Y^* has various threshold points. (κ is the Greek small letter Kappa). The value of the observed variable Y depends on whether or not it crossed a particular threshold. For example, when the outcome is three,

$Yi = 1$ if Y^*i is $\leq \kappa_1$, $Yi = 2$ if $\kappa1 \leq Y^*i \leq \kappa_2$ $Yi = 3$ id $Y^*i \geq \kappa_2$

Therefore, the equations are;

$$P (Y=1) = \frac{1}{1+\exp (Zi- \kappa 1)}$$

$$P (Y=2) = \frac{1}{1+\exp (Zi- \kappa 2)} - \frac{1}{1+\exp (Zi- \kappa 1)}$$

$$P (Y=3) = 1 - \frac{1}{1+\exp (Zi \quad \kappa 2)}$$

In the context of this study, the dependent variable, FCS had three distinct outcomes that could be represented with values of 0, 1, and 2. The FCS had three possible outcomes, Poor if the FCS ≤ 21, Borderline if the FCS is 21-35, and Acceptable if the FCS is > 35. Therefore,

$Yi = 0$ if Y^*_i is ≤ 21, Poor food security level

$Yi = 1$ if $35 \leq Y^*_i > 21$, Borderline food security level

$Yi = 2$ if $Y^*_i > 35$, Acceptable food security level

The model for this study is specified as follows:

FCS = β0 + β₁Sex_HH + β₂Age_HH + β₃HH_Size + β₄Educ_Lev + β₅Agro_EZ + β₆Dep_Rat + β₇PSNP_Memb + β₈Assis + β₉Credit_Acc + β₁₀Saving + β₁₁TLU + β₁₂Offfarm_Act + β₁₃Shock + β₁₄Train_Farm + Uᵢₜ…………… (1)

2.1.1. Explanatory Variables, Measurement and Hypotheses

The selection of explanatory variable was based on empirical studies on determinants of food security Abafita et al. (2014); Amanuel et al. (2023); Antiwi et al. (2021); Asmelash (2014); Assefa et al. (2022); Ayele (2014); Binswanger-Mkhize et al. (2018); Chernet (2023); FAO (2023); Habtamu et al. (2023); Haddad et al. (2016); Hailu et al. (2022); Hawi et al. (2022); Hussein (2017); Ingram et al. (2008); Isaac et al. (2020); Jnvier et al. (2023); Ketemaw et al (2022); Nadia et al. (2018); Ndakaza et al. (2017); Nur-Marian et al. (2019); Sedighe et al. (2023); Sharaunga et al. (2016); Sintayehu et al. (2022); Smiriti et al. (2016); Temesgen et al. (2023); Terrence et al. (2021); Teshager (2020); Thorpe et al. (2013); William et al. (2019) and Yusuf et al. (2021).

Table 1: Summary of Variables and Working Hypotheses

S/N	Variable	Measurement	Expected Sign
1.	Sex of household head	1=Female, 0, otherwise	+
2.	Age of household head	In years	+
3.	Household Size	In number	-
4.	Education Level	In years of schooling	+
5.	Agroecological Zone	1=Highland, 0, otherwise	+
6.	Dependency Ratio	In number	-
7.	PSNP Membership	1=Public work, 0, otherwise	+
8.	Training Related to Farming Activity	1=Received training, 0, otherwise	+
9.	Credit Access	1=Accessed, 0, otherwise	+/-
10.	Saving	1=Have saving, 0, otherwise	+
11.	Off-farm Activity	1=Engaged in off-farm activity, 0, otherwise	+/-
12.	Livestock Ownership	TLU	+
13.	Assistance	1=Received Assistance, 0, otherwise	+
14.	Shock Occurrence	1=Experienced shock, 0, otherwise	-

3. Result and Discussions

3.1. Food Security Situation

A. Food Consumption Score (FCS)
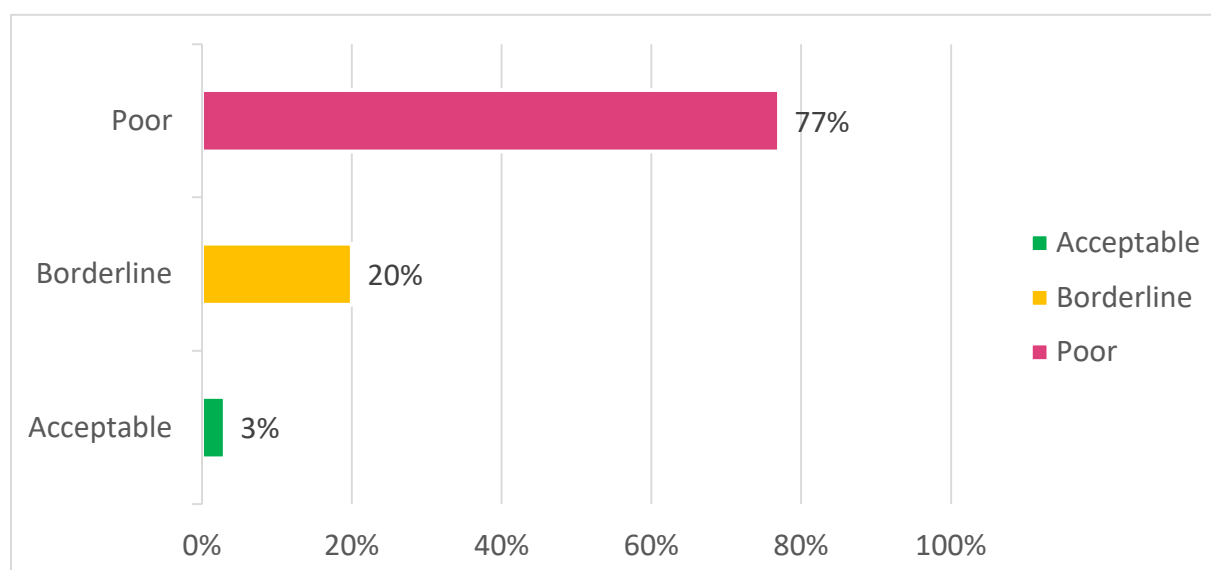
Figure 1: Food Consumption Score

Source: Own computation, based on household survey data (2024)

Figure 1 revealed that majority of the households had poor food security level. From the total of 877 respondents, 674(77%), 179(20%), and 24(3%) were on poor, borderline and acceptable level of food security, respectively. As this indicator considers three things, (1) categorization of the food items that the household ate for the past 7 day into 8 food groups, (2) frequency of eating those items and lastly (3) measuring the nutritional weight of the food groups, we can conclude that the households in the study area mainly consumed food items with low nutritional weight, such as *injera,* bread, porridge and other staples and rarely consumed milk, meat, fish, etc that had highest nutritional weight

B. Household Dietary Diversity Score (HDDS)

Figure 2: Household Dietary Diversity Score Source: Own computation, based on household survey data (2024)

As shown from Figure 2, majority of the households were on poor food security level. From the total of 877 respondents, 476(54%), 330(38%) and, 71(8%) had on poor, borderline and acceptable level of food security, respectively. However, FCS and HDDS were both measure of dietary diversity food security level, HDDS only a measure of variety of food groups consumed in a day regardless of the nutritional value of the food item. Because of this difference, food security level found by using HDDS was better than food security level found by using FCS. From the result givenabove, it can be concluded that most of the respondent households consumed small number of food items in a day.

C. Reduced Coping Strategy Index (rCSI)
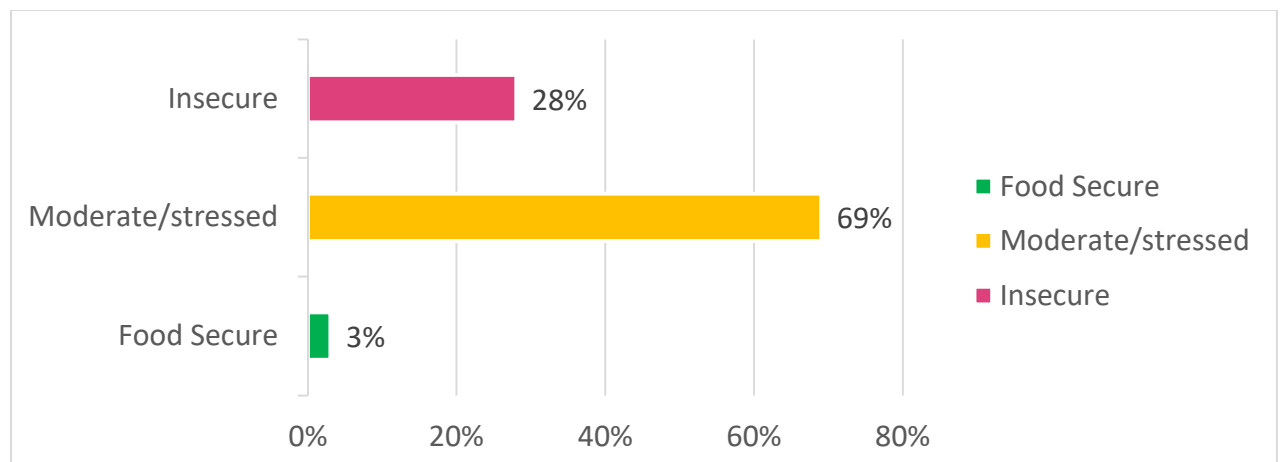
Figure 3: Reduced Coping Strategy Index

Source: Own computation, based on household survey data (2024)

As indicated from Figure 3above, majority of the respondents had moderate/stressed level of food security. From the total of 877 respondents, 245(28%), 608(69%), and 24(3%) were insecure, moderate/stressed and food secure, respectively. The reduced coping strategy index measured the strategies that households took when they did not have enough food or money to buy food. Therefore, the result revealed that most of the respondents used harmful strategies, such as reducing number of meals eaten in a day (frequency), restriction adults' food consumption, etc. when they had not enough food.
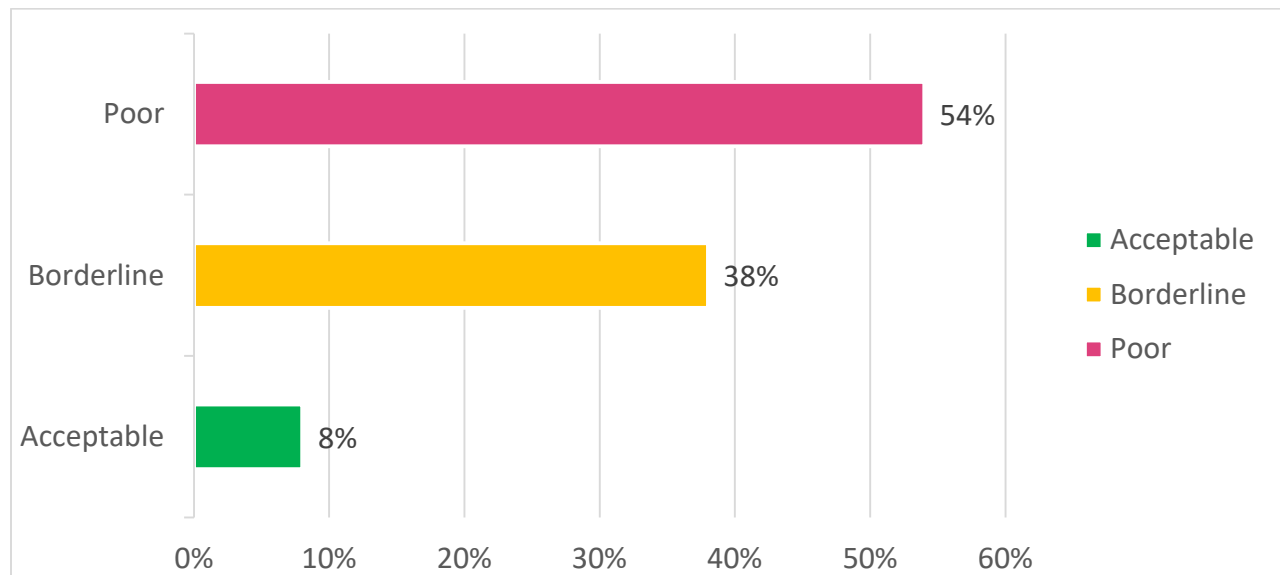
D. Household Hunger Scale (HHS)
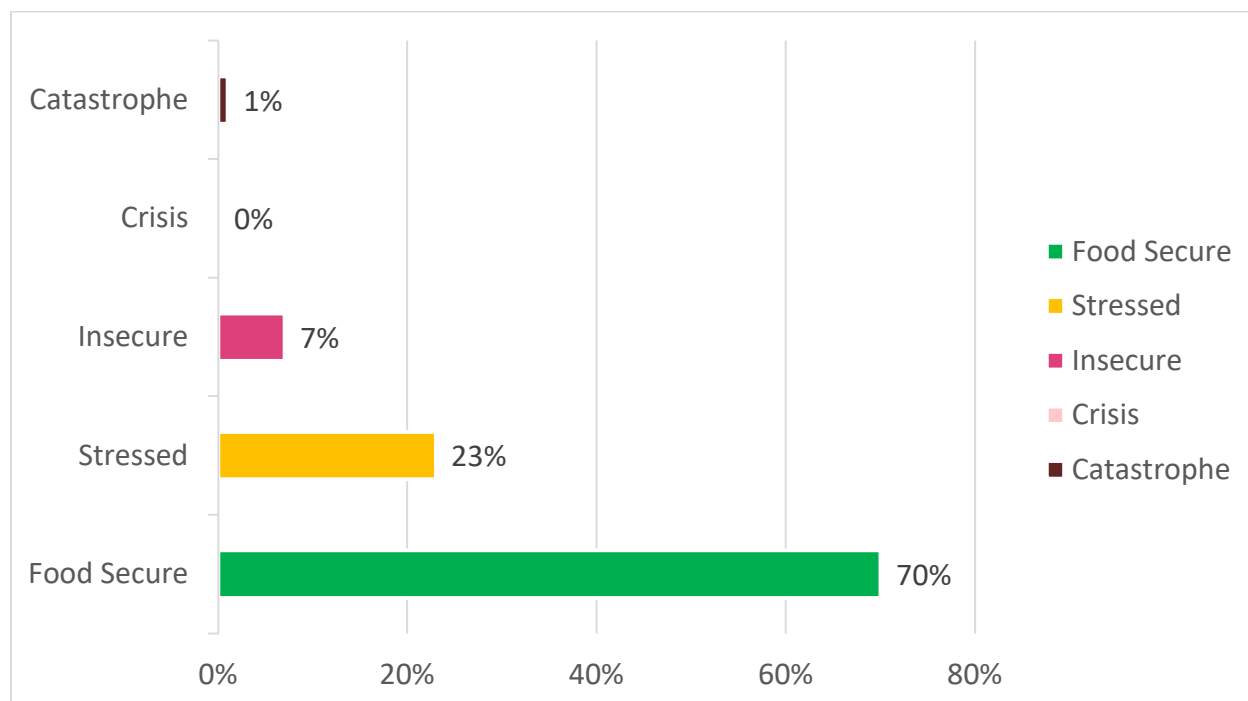
Figure 4: Household Hunger Scale

Source: Own computation, based on household survey data (2024)

As shows from the Figure 4, majority of the households were food secure. 613(70%), 203(23%), 60(7%) 0(0%), and 1(0.001%) of the respondents were on food secure, stressed, insecure, crisis and catastrophe level of food security, respectively. This was mainly because food insecure households did not eat any food in any kind for several days in this context.

3.2. Ordered Logit Regression Result

In STATA/SE 18, fourteen variables were input, and an ordered logistic regression model was utilized to determine the key factors influencing food security in the specific area under study. The likelihood ratio statistic as a measure of goodness of fit of the model showedthat the number of observations was 877. The LR chi -squared was 64.85 with p-value of 0.000, indicating that the model fits the data well as compared to the null. From the total of fourteen independent variables, the marginal coefficients of nine variables found to be statistically significant.

Table 2: Marginal effect results after ordered logit

Variables	Poor Food Security		Borderline Food Security		Acceptable Food Security	
	Coef. (st.E)	Marginal effect	Coef. (st.E)	Marginal effect	Coef. (st.E)	Marginal effect
Sex_HH	0.0332	-0.0206	0.0288	0.0179	0.0044	0.0027
HH_Size	0.0073	0.015**	0.0064	-0.0131**	0.001	-0.0019*
Age_HH	0.0012	-0.0022*	0.0011	0.0019*	0.0002	0.0003*
Educ_Lev	0.0064	-0.007	0.0056	0.0061	0.0009	0.0009
Agro_EZ	0.0493	-0.2168***	0.0406	0.1824***	0.0113	0.0344***
Dep_Rat	0.0153	-0.0262*	0.0133	0.0228*	0.0021	0.0034
PSNP_Memb	0.032	-0.0655**	0.028	0.057**	0.0044	0.0084*
Assis	0.0322	0.0326	0.0281	-0.0284	0.0042	-0.0042
Credit_Acc	0.0288	0.1019***	0.0255	-0.0891***	0.0042	-0.0128***
Saving	0.0449	0.0041	0.0392	-0.0036	0.0058	-0.0005
TLU	0.0053	-0.0164***	0.0046	0.0143***	0.0008	0.0021***
Offfarm_Act	0.0466	0.0822*	0.0397	-0.0708*	0.0073	-0.0115
Shock	0.0402	-0.0573	0.0355	0.0502	0.0049	0.007
Train_Farm	0.0529	-0.1067**	0.0447	0.0914**	0.0088	0.0153*
***, **, * significant at 1%, 5% and 10% probability level respectively						
Number of observations	877					
LR chi^2(14)	64.85					
Pseudo R^2	0.0591***					
Log likelihood	-515.84					

3.3. Discussions of Regressions

A. Demographic Factors

As shown in Table 3, the variable household size had positive effect on being on poor food security level at 5% level of significance, whereas, had negative effect on being on borderline and acceptable food security status with 5% and 10% level of significance. The estimation result found thatan increase in household size by one member increased the probability of being on poor food security by 1.5%, reduced the probability of being on borderline and acceptable food security by 1.31% and 0.19%, respectively. Increased strain on resources, especially food, due to larger household sizes led to scarcity, inadequate nutrition, and heightened food insecurity, particularly in rural areas. This result was consistent with the developed hypotheses and previous studies of Yusuf et al (2021), Hailu et al (2022); (2020); Sedighe et al (2023); and Antwi et al (2021).

The variable age of household head had negative effect on being on poor food security level at 10% level of significance, whereas, had positive effect on being on borderline and acceptable food security status with 10% level of significance. The regression result revealed thatother things remained constant, an increase in age of household head by one year was associated with 0.22% less likely to be on poor, 0.19% and 0.03% more likely to be on borderline and acceptable food security level, respectively. The age of the household head positively impacted rural household food security by leveraging experience, knowledge, and skills for better decision-making in food production, management, and crisis coping. Older heads' wisdom, social networks, and resilience enhanced household food security. This result was in consistent with the developed hypotheses and previous studies of Abafita et al (2014); Assefa et al (2022); Hailu et al (2022) and Chernet (2023).

According to the result, living in highland agro ecology zone had negative relation with being on poor food security level at 1% level of significance, whereas, it had positive effect on being on borderline and acceptable food security status with 1% level of significance. The result confirmed that other things remained constant, households living in highland were 21.68% less likely to be on poor, 18.24% and 3.44% more likely to be on borderline and acceptable food security level as compared to households living in midland and low land, respectively. Highland areas' cooler climate and consistent rainfall enhanced crop productivity and diversity. Terracing and sustainable practices conserved resources, while isolation protects against pests, boosting yields and food security. This result was in consistent with the developed hypotheses.

The variable dependency ratio had negative and positive effects on being on poor and borderline food security levels at 10% level of significance, respectively. The result revealed that an increase in ratio of dependent age groups to working age groups by one unit decreased the probability of being on poor food security level by 2.62%. Whereas it increased the probability of being on borderline level of food security level by 2.28%. However, this result contradicted with the developed hypotheses and previous studies of Habtamu et al (2023); Temesgen et al (2023); Sintayehu et al (2022); Yusuf et al (2021) and Sedighe et al (2023). The following reasons could be mentioned as factors. In rural households, more family members, including dependents, contributed to farming activities, increasing yields and overall food security through collective efforts and motivations.

B. Institutional and Infrastructural Factors

According to the result, Public Work PSNP clients were less likely to be on poor food security level at 5% level of significance, whereas they were more likely to be on borderline and acceptable food security status with 5% and 10% level of significance, respectively. The result confirmed that other things remained constant, Public Work PSNP clients were 6.55% less likely to be on poor, 5.7% and 0.84% more likely to be on borderline and acceptable food security level, respectively, compared to direct support clients, respectively. Participating in public work projects built skills, supported livelihoods, enhanced income, and strengthened community and food security resilience. These results were in line with the developed hypotheses.

The results revealed that the households those who took farming related trainings were less likely to be on the poor food security level at 5% level of significance, whereas they were more likely to be on borderline and acceptable food security status with 5% and 10% level of significance, respectively. The result confirmed that other things remained constant, households who took farming related training were 10.67% which was less likely to be on poor, 9.14% and 1.53% was more likely to be on borderline and acceptable food security level. Training programs improved agricultural practices, boosted yields, reduced losses, diversified diets, generated income, and enhanced food security in rural households. This finding confirmed the developed hypotheses of a study conducted by Ketemaw et al (2022).

C. Economic Factors

The variable access to credit had positive effect on being on poor food security level at 1% level of significance, whereas, it had negative effect on being on borderline and acceptable food security level with 1% level of significance. The regression result revealed that other things remained constant, households with access to credit were 10.19% more likely to be on poor food security level. Besides, they were 8.91% and 1.28% less likely to be on borderline and acceptable food security level, respectively. While access to credit could be beneficial for investment in agricultural activities, it was also burden to rural households with debt, leading them to prioritize loan repayment over purchasing enough food, which exacerbated food insecurity, especially with high-interest rates adding financial strain. This variable was expected to be either positive or negative as there were controversial existing evidences, for instance Teshager (2020); Amanuel et al (2023) and Nadia et al (2018) found that credit access improved

the rural household's food security, whereas Abafita et al (2014) and Yusuf et al (2021) revealed credit access worsened food security level. Therefore, the finding of this study was in conformity with the studies that found negative relationship between food security and credit access.

According to the result, off-farm activity engagement had positive effect on being on poor food security level at 10% level of significance, whereas it had negative effect on being on borderline food security level at 10% level of significance. The result implied that, other things remained constant, the households engaged in off-farm activities were 8.22% and they were more likely to be on poor, 7.78% were less likely to be on borderline food security level as compared to those who didn't engage on off-farm activity. This variable was also expected to be either positive or negative as there were contradicting literatures, for example, Nur-Marian et al (2019); Abafita et al (2014); Ingram et al (2008); Assefa et al (2022); Yusuf et al (2021); William et al (2019) and Hussein (2017) found positive relation whereas Binswanger-Mkhize et al (2018); Thorpe et al (2013), and Haddad et al (2016) found negative relationship between off-farm activity engagement and food security level. However, it can provide household with additional income; it also worsened rural food security by diverting labor and resources from agriculture; reducing productivity, increasing food expenses, and potentially causing dietary deficiencies due to prioritizing cash crops or selling livestock and livestock products. Therefore, the regression result was in consistent with studies that found negative relationship between food security and off-farm activity engagement.

D. Ownership Factors

The variable livestock ownership had negative effect on being on poor food security level at 1% level of significance, whereas, it had positive effect on being on borderline and acceptable food security status with 1% level of significance. The finding revealed that other things remained constant, an increase in livestock measured using TLU reduced the probability of being on poor security level by 1.64% and increased the probability of being on borderline and acceptable food security level by 1.43% and 0.21%, respectively. Livestock provided food diversity (meat, milk, eggs), income stability through sales, and enhanced agricultural productivity with draught power and manure. The result was in line with the developed hypotheses and previous studies, such as Abafita et al (2014); Asmelash (2014) Yusuf et al (2021) and Sedighe et al (2023).

4. Conclusions and Recommendations

Food security of the study area was measured using four indicators. It was found that out of 877 participants, 77% were classified as having poor food security, 20% as borderline, and 3% as acceptable based on the FCS. Additionally, most of the respondent households were found to have varying levels of food security with 54% on a poor level, 38% on a borderline level, and 8% on an acceptable level using HDDS. Moreover, it was found that 28% were insecure, 69% were moderate/stressed, and 3% were food secure using rCSI. According to the HHS, 70% of the respondents wereclassified as food secure, 23% as stressed, 7% as insecure, with 0% at crisis level, and only 0.001% at catastrophe level of food security. Age of household head, agro ecological zone (living in Highland), dependency ratio, PSNP membership (being Public Work PSNP client) and livestock ownership had positive and significant effect on food security. Conversely, credit access, off-farm activity engagement and large household size had negative significant effect.

This study recommends the government to prioritize the following key initiatives to bring social behavior change to enhance food security comprehensively. Firstly, endorsing and promoting Climate Smart Agriculture (CSA) practices bolstered agricultural resilience against climate risks, particularly in low land and midland areas. Providing robust support for farm-related activities, including training boosted agricultural productivity. Implementing effective food education programs ensured communities understand optimal food utilization and dietary diversity, especially for the young age groups. Strengthening safety net programs in a way that would

compensate for those vulnerable communities who are elderly and peoples with disability (PWD) who are unable to engage in field work generated other income (Direct Support PSNP clients) and supported vulnerable households during food insecurity periods. Enhancing family planning programs empowered families to manage household sizes effectively and reduce pressure on food resources. Facilitating access to agricultural inputs and resources, particularly animal breeds had impact on improving food security. Lastly, educating and monitoring financial services including promote financial literacy offered affordable loans, provided agricultural financing and monitored loan use by collaborating with NGOs and financial service providers to reach more rural households effectively and provided comprehensive support beyond just financial services.

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Inter-ethnic Pastoralist Conflict and Conflict Resolution Mechanisms in South West Ethiopia Regional State: The Case of Suri and Dizi Communities

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Abstract

This study aimed to investigate the causes, consequences and conflict resolution mechanisms of inter-ethnic pastoralist conflicts in South Western Ethiopia focusing on the Dizzi-Suri pastoralist communities. To this end, the study employed qualitative research approach. Non-probability sampling design was used and informants were selected using purposive sampling technique. Tribe leaders, elders, iconic community representatives, youths and concerned government bodies were the sources of the primary data and hence diverse voices of the study communities were heard. In doing so, primary data were collected through in-depth interviews, key informant interviews and focused group discussions. The collected data were analyzed and discussed using thematic analysis technique. The study found that the causes of conflicts between Dizzi and Suri pastoralist communities were either externally or internally rooted. The external causes were entrenched from the attacks of the external forces mostly from Toposa Bumi tribe of South Sudan. Internally, the established harmful traditions of the local communities like the tradition of giving high amount of dowry during marriage arrangement and revenge encouraged the community members to rob livestock were found to be the major causes of conflicts. Competitions over resources, illegal trading and illegal fire arming were other causes of conflicts in the area. Government officials and security forces were found to have aggravating role to the existing conflicts of the area. Loss of human life, erosion and disruption of social interaction, revenge, displacement and disruption of basic public institutions were some of the social crisis resulted due the conflicts happened in different times. The local communities were feeling as if they were politically marginalized by the federal government. Implementation of different peace making tools like community mobilization, consultation and peace campaigns were in placed to resolve the bloody conflicts of the area. Reconciliation focused on the rebuilding social interaction between the Dizzi and Suri pastoralist communities was also the focus of the intervention. In nutshell, the study found that the nature of conflict was found to be long lasting; its causes and actors were multidimensional; its consequences were complicated and devastative. However, the resolution mechanisms in place to manage and end the conflict were found to be very limited and not effective. Thus, to resolve the long lasting conflicts of the area, Informal traditionalconflict resolution mechanisms should be seriously considered towards reconciliation, rebuilding of the eroded social interaction and genuine community consultations to end the conflict.

Key Words: Conflict resolution mechanisms, Inter-ethnic conflict, Pastoralist community

1. Introduction

Pastoralism is a subsistence pattern in which people make their living by tending domesticated animals and those who make their living in pastoralism are called Pastoralists (Rweyemamu, 2019). For researchers like Daniel *et al, (*2017), pastoral communities differ from other populations by certain common characteristics. For them, pastoralists derive a substantial share of their livelihoods from livestock and share communal rangeland resources. Productivity of the rangelands is in turn influenced by erratic rainfall that considerably varies between and within years. The rainfall patterns also have direct implication for livestock mobility (Ibid).

According to Mkutu, (2001), pastoralists constitute a significant portion of the world population. As to him, 500-600 million people live in the arid and semi-arid parts of the world out of them 30-40 million depend entirely on animals and 50-60% is found in Africa. Thus, the Horn of Africa contains the largest grouping of pastoralists in the world. Regionally, Sudan has the highest pastoralist percentage globally while Somalia and Ethiopia rank third and fifth respectively. In Djibouti, one third of the population is pastoralist. The semi-arid and arid areas in the Horn make up 70% of the total land area, which provides an average of 20 to 30 percent of GDP. At the local level, as much as 70% of cash income is generated from livestock (Ibid).

Despite the above facts, the pastoral areas in the Horn of Africa are found to be conflict hotspots. According to Bekele, (2010), these are places where states fail to properly fulfill their functions and the consequence is found to be destructive. But, conflict-instigating factors and the mechanisms of conflict vary spatially and temporally (Bekele, 2010).

In Ethiopia, pastoralists comprise significant number of the population and occupy large areas of the country. In this regard, pastoralists in Ethiopia occupy 61% of the total territory of Ethiopia and are estimated to represent 12% of the population (Abdulahi, 2005). The majority of pastoralists in Ethiopia belong to the Somali, Boran and Afar groups. There are also some other small groups of pastoralists in western Ethiopia (Ibid).

The Dizi and Surma communities are pastoral and agro-pastoral groups found in West Omo Zone of South western region of Ethiopia. These communities maintain amicable ties with each other through exchange of goods and services on the market, marriage and rituals. The prevailing patterns of interactions between the Dizi and Surma are sometimes cooperative and sometimes conflict-ridden and the conflict and violence are more intense and destructive (Abeje, 2006). Therefore, the paper focused on causes of conflict, consequences, resolution mechanisms of conflict between the Dizi and the Surma communities.

2. Statement of the Problem

Violent conflicts involving pastoralists have become widespread and increasingly severe throughout much of the Horn of Africa (Abdulahi, 2005). Relating to this, Getachew (2002) claimed that pastoral communities in the lowland areas of Ethiopia face more threats to their mode of life and survival nowadays than earlier times. In the post-1991period, several episodes of inter-communal tensions and conflicts over territorial issues have taken place between regional boundaries. To mention a few, inter-ethnic conflicts between the Borena and the Gerri, the Afar and the Issa, the Guji and the Gedo (Asnake, 2002, the Issa and the Ittu-Kereyu, and the Afar and the Kereyu Oromo, Boran and Digodi are reflections of the current inter-ethnic and pastoralists conflicts in Ethiopia across and across the border in Kenya (IPSS, 2012).

There are different causes of conflicts in the pastoralist communities. Political marginalization , frequent and serious droughts, lack of equitable access to water resources, increased competition for available land between ranchers, agriculturalists and pastoralists and wildlife, land tenure, weakening of traditional governance , insecurity, cattle rustling and small arms are found to be the major factors of conflict in pastoralist areas (Mkutu, 2001). Likewise, competitions over pasture, water and livestock raiding have been ongoing causes of pastoralist conflicts. Decline of local traditional institutions, contested borders, poor governance, cultural practices intensified and shaped by political factors, particularly, the interventions of the government and local administrations, changes in administrative boundaries have been other causes for pastoralists' conflict (Abdulahi, 2005; IPSS,2012).

Conflicts caused by the above mentioned factors have resulted in many negative and devastative impacts. Raiding cattle, killing and kidnapping people on intermittent basis are some consequences of conflicts in pastoralist areas (Abeje, 2006). On the other hand, the volatile border areas have become a safe haven for criminals due to mistrust and lack of political and social will to hand over criminals and bring them to justice by the governments and the communities in focus (IPSS,2012).

Regardless of the difference causes, efforts have been made to manage conflicts happened in between pastoral groups. For instance, *gereb* is a joint institution which functions as an indigenous court run by a council of elders from the Afar and the Wejerat (IPSS, 2012). According to Abeje (2006), restoring peace and stability through negotiation is a prerequisite for the development of the Maji area. There is a need to encourage the participation of indigenous clan-based institutions in dealing with disputes between the two ethnic groups. Elders of conflicting groups and their respective social organization can play an important role in resolving ethnic conflicts.

Even though, different studies (Abeje,2006; Abdulahi, 2005; Asnake, 2002, Getachew; 2002; Mkutu, 2001) have been conducted so far on the issue across different times and cultural settings, the nature, causes, consequences and resolution mechanisms of conflicts in pastoralists' area is dynamic along with time and culture of the communities. On the other hand, pastoralist conflicts have changing nature along with time. Apparently, the destructive consequence of pastoralist conflict continues yet. More importantly, as preliminary report of south western regional state police commission showed that there is destructive conflict between Dizzi and Surma pastoralist communities. Due to this reason, it is logical to conduct timely and culture specific research on the area. Therefore, this study looked into the factors of conflict, consequences and conflict resolution mechanisms between Dizi and Surma communities.

3. Objective of the Study

The general objective of the study was to assess inter-ethnic pastoralist conflicts between Dizzi and Suri communities of South West Regional State focusing on the causes, consequences and efforts made to resolve the existing conflicts. Based on this general objective, the study identified the causes of conflicts between Dizzi and Suri Pastoral communities. In addition to this, the study specifically investigated the consequences of conflicts between Dizi and Suri Pastoral communities. Finally, the study assessed conflict resolution mechanisms in placed to resolve the frequent conflicts happened between Dizzi and Suri Pastoral communities.

4. Review of Related Literature

Pastoralism is a system of raising livestock in which they are mobile in some form. This can be used with various forms of livestock, from cattle to camels to goats and more. It is a practice rooted in both ecological necessity and the cultural heritage of nomadic peoples, from the Sami in Sweden to the Bedouins of the Arabian Peninsula. Pastoralism is an umbrella term that covers diverse cultural practices and modes of livestock mobility, including nomads who are continuously on the move and cover thousands of miles year-round to seminomadic herders whose livestock move seasonally or only over short distances (Jobbins & McDonnell, 2021).

Ethnic conflict might occur in its various aspects. According to Sisay (2007), ethnic conflicts are clashes among two or more ethnic groups due to demand for power, resources, identity, social status and the like. It refers to situations where people mobilize against others on the basis of their ethnic identity. Conflicts increasingly present themselves as ethnic conflicts with ethnic identity serving and instrumentalised as the rallying point or the mobilization agent for the manifestation of the conflicts.

Conflict drivers are seasonal and primarily related to territorial rights and competition over critical grazing areas, exacerbated by livestock raids and revenge killings (Center of Excellence

International Consult, 2021). According to this study, the Dizzi people believe that the people of Suri have displaced them from their earlier strategic location bordering Sudan and Kenya. They believe that Suri has been benefiting from its current location bordering by Sudan and Kenya. The benefits they are claiming are smuggling of arms and dominance in bush market of other commodities from South Sudan and Kenya. Hence, they Dizi want to fight back their land (Center of Excellence International Consult, 2021).

Abdulahi (2005) also found that competitions over pasture and water and livestock raiding have been ongoing causes of pastoralist conflicts. The movements of the two pastoral groups vary according to the distribution of pasture and water. During the dry season, pastoralists move to the dry season reserve areas along the lower banks of rivers and the areas outside the riverbanks. In addition to conflicts caused due to resources ownership claims, pastoralist conflicts are also accompanied cultural traditions. According to in addition to resources competition, pastoral conflicts are driven by cultural traditions of the communities. According to Yohannes et al. (2005), killers were culturally decorated as a prestige and/or 'hero' in the Hammer community. Even the level of decoration and level of respect also accorded a function of the number of people killed. 'The respect and prestige bestowed on the 'hero' extends to all the members of his family. For instance, his wives(s) will get priority access to water points or special status during ritual or other ceremonies performed by the ethnic group. This cultural practice is accepted by the community but remains one of the principal factors that trigger inter-ethnic conflicts in the zone

As far as causes of pastoralist inter-ethnic conflicts are concerned, the increased use of firearms contributed a lot for inter-ethnic pastoralist conflicts. This is particularly the case where farmer-herder conflicts occur on top of other conflicts, where they are compounded by the prevailing insecurity. This has happened in rural areas that have been destabilized by insurgency, war, political or ethnic violence, or banditry. In such situations state authority is usually weak, dispute resolution mechanisms may have broken down, and weapons are readily available (UNOWAS, 2018). Also, according to Center of Excellence International Consult (2021), firearms are highly smuggled in South West Ethiopia. In this area, people want to buy rifles for security reasons as the government security forces are unable to protect the people from attacks. Sometimes they sell their rifles and quit the service. Sometime government officials, police and militia are involving in smuggling.

According to Dagne (2009), the adverse effects of violent ethnic conflict and classifies into three categories. Ethnic conflict could be resulted in political, economic and socio-cultural effects. The political effect of ethnic conflict could be the weakening, disintegrate and possible collapse of the central government. Ethnic conflict leads, to the breakdown of law, order and stability. From economic angle, ethnic conflict destroys the very bases of development: environmental resources, economic infrastructure, deter long run investment and the

productive labor force will be drained, hence production and productivity decline. The Social upshot of inter-ethnic conflict concerns loss of social services, displacement of people as refugees, humanitarian crisis, vulnerable groups Women, children, and the old as well as the disabled who often seriously affecting.

Likewise, the study conducted by CEIC in 2021 indicated that the historical and cultural scenarios of border conflicts are affecting the government, business sectors and peace and security situations of the area. It has adverse impacts on inter-trading and marketing. There is no good trade relationship between Dizi and Surma people, for example, because of historical hostilities between them. It has also impacted the perception of the community members towards Government structure in such a way that there is a tendency to distrust and disfavor those government officials who do not share their beliefs and ethnic background.

Different conflict resolution mechanisms efforts have been shown to resolve the existing pastoralist inter-ethnic conflicts that happened in different times. According to Bekele (2010), these mechanisms can broadly be categorized into two, formal and informal.

The formal mechanisms are mechanisms related to formal legal institutions. Litigation is the dominant method of resolving disputes in formal mechanisms. Litigation is a process of conflict resolution in a court. Bekele (2010) states the formal mechanisms, the court can be a national court created by national legislation as part of the justice system of the country or, an international one created by the law of international or multilateral institutions. Such mechanisms are useful in handling individual conflicts but constraining in addressing the multiple effects that may arise as a result of the original cause of dispute.

According to Abdullahi (2005), Since 1992, local government officials have been directly involved in the Boran/Digodi conflicts, by employing government (public) resources and force. As to this finding, between 1991 and 1998, interventions by the regional administrations and the federal army had not been very successful in resolving the conflicts and bringing lasting solutions. The federal army usually intervened after many casualties had already happened. The interventions of the army sometimes had the effect of escalating the conflicts by making one group or the other feel that the army had taken sides.

The informal ones are mechanisms that range from the traditional mechanisms with lots of variations to the broader areas of preventive diplomacy, mediation, cooperation and other related activities. Because of the limitations of the judicial system in providing comprehensive solutions to disputes, alternative methods of dispute resolution have developed in varying forms (Abdulahi, 2005). Alternative dispute resolution methods may be less adversarial, less formal and more flexible process. Some of the forms of alternative informal dispute resolution mechanisms include arbitration, negotiation and mediation (Ibid). Also, as to Tirist

(2005), it is important to illustrate significance of the traditional conflict resolution mechanisms, when compared to the modern mechanisms it is less complex, more time saving and gives a chance to parties in conflict to participate in solving their own problems and handling their own affairs.

5. Study Setting and Methods

Study Site

The study was conducted in Surma and Bero Pastoralist woreda of West Omo zone found in the newly established South West Regional State. Officially the South West Ethiopia Peoples' Region is a regional state in southwestern Ethiopia. It was split off from the Southern Nations, Nationalities, and Peoples' Region (SNNPR) on 23 November 2021 after a successful referendum.

West Omo Zone is located in South West regional state of Ethiopia's southern margin bordering Kenya. The area is dominantly inhabited by the Dizi, and Suri and communities. The Suri community in Surma woreda is agro-pastoralist while the community in Bero woreda (Dizi and other ethnic communities) is predominantly agriculturalist The suri occupy the southwesterly outpost of the country numbering 20,572 people (Abeje, 2006). On the other hand, the Dizi occupy the South Westerly central plateau of the former Maji province, presently Bero wereda. The Bero wereda is bordered in the East by Omo River; in the West by Gambella, in the North by Me'ent wereda, in the South by Surma wereda, and South Omo zone. The first national population census in 1984 put the population of Dizi at 20,066, and ten years later the 1994 population and housing census came up with 22,346 persons (Center of Excellence International Consult, 2021). Three kebeles from each woredas namely Kibish, Anjo and Borka Kebeles from Surma Woreda and Jeba, Donta and Siri kebeles from Bero woreda were purposively selected for this study. The rationale of selecting these two woredas is due to the existence of frequent conflict between the two pastoralist communities.

6. Methods of the Study

The study employed a cross-sectional qualitative design where participants' lived experiences and knowledge regarding the frequent conflict between the Suri and Dizzi inter-ethnic pastoralist conflicts constituted the primary source of data. Data were collected using in-depth interviews, key informant interviews, and focused-group discussions. The qualitative data were collected through in-depth interviews (11), key informant interviews (7), and 2 focused-group discussions (15). The participants for in-depth interviews and FGDs were selected using purposive qualitative sampling, where gender, age, and ethnic representation were considered. Women represented 27% of all the study participants. In terms of their ethnic representation, 55% were

from Suri ethnic group and tribe and the remaining 45% were from Dizzi ethnic affiliation. In-depth and key informant interviews were held with clan and tribe leaders, elders, youths, police officers, and government officials of the two woredas, concerned regional and zonal officials. Focused-group discussions were organized and conducted to get a sense of the community's shared feeling about the long lasting conflict of the two communities. In this way, diverse voices were expressed and reflected on the issue.

7. Data analyses

The collected data were analyzed and interpreted thematically to meet the study's objectives, considering the theoretical framework adopted in this study and also in line with the reviewed literature. Information obtained from IDIs, KIIs, and FGDs was voice-recorded (with consent obtained from the study participants) and then organized into themes that emerged from the literature and during conversations with the study participants. These themes consisted of words/concepts/phrases that helped us understand barefooting from the perspectives of the study participants. By applying a qualitative analysis, we can gain deeper insights into the study participants' diverse voices without preempting any predetermined answers.

8. Findings of the study

Causes of Dizzi-Suri Inter-ethnic Pastoralist Conflicts

The Dizzi-Suri inter-ethnic pastoralist conflicts happened at different times had different causes. Some of the causes were found to be immediate and others were additional causes that triggered the existing conflicts. The causes of conflicts weree linked with internal and external factors. The internal causes were largely associated with resources competitions between the Dizzi and Suri pastoral ethnic groups. The external causes arose from the attacks of external forces in border areas where the Suri community shared the large amount of territories with South Sudan. In many case, the internal and external causes of conflicts were found to be highly interlinked. The external causes werefound to produce internal causes of conflict.

External Forces Attacks from the Border

The South west Ethiopia largely shared boarder line with south Sudan which is not even well demarcated. Due to this, there were massive external attacks targeted on the Suri and Dizzi pastoralist communities. Mostly, the attacks came from Toposa Bumi tribe of South Sudan. These forms of attacks produced many internal conflicts in the area in different times. Attacks from external forces were too complicated due to poorly demarcated border lines and external armed insurgents uncontrolled movements. As it was illustrated by the informants, the Toposa

Bumi tribe of South Sudan encroached and occupied up to 70 kms of territories inside the Ethiopia boundary. An informant explained the case as:

...Historically, until the down fall of the Dergue, the capital of Surma woreda was Mardure. However, this historical place is occupied by South Sudan starting from the late 1991. Due to this reason, Surma woreda shift its center from Mardure to Kibish (the current capital of surma woreda). Historically, kibish was the land of Dizzi community. Not only Kibish but also the areas like Coka were lands of the Dizzi community but currently is occupied by Suri community. These shifts caused land ownership claims and gradually led to conflicts between Dizzi and Suri pastoralist communities (46 years old male informant from SW regional state)

According to the above informant's excerpt, the Suri community forcefully left its own territories due to Toposa Bumi attacks and in turn occupied the territories of the Dizzi Community. As to him, the shifts produced quarrelling interest on land ownership and gradually turned to conflicts between the two local communities. In connection with this, the Dizzi community faced a problem of cattle robbing and killing killing by the Suri community. This led to frequent conflict between Dizzi and Suri communities and yet unsolved.

As stated by the informants of the study, the invasion of Suri land by Toposa Bumi was found to be the major cause for many internal conflicts occurred between the Dizzi and Suri communities. The case is narrated by the informant as:

...Because of the enormousness violence of Toposa Bumi, every member of Suri community is eager to retaliation and fight. Each and every Suri child is grew up thru hearing and internalizing the description that Toposa Bumi is our enemy so that you have to brave to fight against it. There is also a communal permissive that every adult of Suri community should not sleep at night because enemy Toposa Bumi may attack during the sleeping time. You see? How much sense of enemy is developed in the minds of Suri community? (37 years aged male informant from Suri community)

Furthermore, another informant from the FGD strengthens the above informant's idea as:

... I was born in 1958 in Suri specifically a place called Tirma and Tide. This area was historically the original the land of Suri community. But this land was occupied by the South Sudanse after EPDRF hold power. Besides, during the Dergue regime the center of Suri community/woreda was Mardure. Through time, the center of Surma woreda shifted to Kibis. which was formerly the land of Dizzi community. Thus, Suri is pushed from its original land by the South Sudanse and the Dizzi in turn pushed from its original land due to Suri expansion and invasion (45 years old male FGD discussant from Surma Woreda)

Therefore, according to the diverse responses of informants, the external attack that mainly arose from South Sudan Toposa tribe was the primary cause for different conflicts out broke in the area in general and between Dizzi and Suri pastoralist communities in particular. In other words, the external pressures and attacks from the South Sudanse armed forces twisted different internal causes of conflicts among the neighboring Dizzi and Suri pastoralist communities.

Internal Causes of the Conflict

Established Traditions of the Local Communities

There are socially constructed and deep rooted traditions among the Suri community that expose the members to conflict. Among the others, there is huge amount of dowry in terms of livestock and guns during marriage arrangement. For instance, among the Suri community, to marry a girl a man need to give dowry of 80 cattle and one firearm or weapon to the bride family. To this end, the groom has to collect the cattle from his family; otherwise, if the groom couldn't afford these amounts of cattle and firearm, he couldn't find mate and forced to robe the cattle of others around. An informant from Dizzi community explained the case as:

...The Suri community has established tradition of providing large amount of dowry of cattle and guns to form marriage. To this end, the Suri grooms have two options. He should rear and own many cattle or should rob the cattle of the Dizzi community to afford for the dowry. As long as high amount of dowry has deep rooted tradition among the Suri community, cattle robing is normal and continues to the future. The situation is the major cause for the existing conflict. The low awareness and absent of exposure to urban life of the Suri community aggravate the existing conflict of the area. (42 years old male informant from Suri community)

In addition to the delivery of high amount of Dowry, the culture of ASHA is the other deep rooted cultural tradition practiced among the Suri comunity. This is a type of compensation to revenge. Based on this tradition, if an individual kills a person, He should give 20 cattle to the family of the dead individual. If the killer doesn't give cattle for the Asha, there is counter revenge of killing. To this end, individuals who could not afford the expected amount of cattle involve in the robbing of cattle.

Cattle robbing in turn leads to another counter cattle robbing as revenge. This form of tradition is evident among the Dizzi and Suri communities. An informant from the Suri Community affirmed the issues during the FGDs as:

In our community, the thoughts and practices of revenge are very harmful. There is a strongly believed normative tradition that those who robbed their cattle should do the same thing as revenge. If an individual could not rob cattle as a means of revenge, he is considered as impotent

or frightened. Due to this reason counter cattle robbing is thought as mandatory which produced vicious circle conflict between Dizzi and Suri pastoralist communities. (51 years old clan leader male informant from Dizzi community)

Furthermore, accumulating and owning large amount of livestock is also a firmly believed tradition among the Dizzi and Suri communities. The means to own the large amount of livestock could be either legal or illegal. The members of the community are not concerned about the means of own livestock instead they have high value for the expected high amount of livestock. In these communities accumulating and owning large amount of livestock is considered as a sign of high social status, prestige and honored. Thus, people involve in livestock robbing of other so as to achieve the socially constructed status of the community. This in turn steered to inter-ethnic pastoralist conflicts between the Dizzi and Suri communities. An informant from Dizzi community stated the situation as:

… Among the Dizzi and Suri communities, livestock is a matter of prestige, proud and life. They accumulate large amount of livestock in cattle pen to show their social status. Because of this social expectation, they sometimes involved in robbing livestock of others so as to increase number of livestock. Especially, among the Suri community, cattle have high value than individual's life. In this community, it is preferred to kill three or four persons than killing one cattle. We have seen that this type of thought and aspiration caused many conflicts between Dizzi and Suri communities. (57 years old male informant from Dizzi community)

Therefore, according to the diverse views of informants, the existing social fabric of the community contributed a lot for inter-ethnic pastoralist conflicts in South West Ethiopia. This is particularly rampant among the Dizzi and Suri communities. The established tradition of providing high amount of dowry in one way and the tradition of Asha alongside with the unforgiving revenge produced many conflicts in these communities. The established social expectation of the communities towards the accumulation of large amount of livestock also embolden the community members to robbing and ultimately to conflicts.

Competitions over Resources

The Dizzi and Suri pastoralist communities have diverse and untapped natural resources. In these areas, there are fertile grazing lands, water resources, forests and mining. However, starting from the last two decades, these communities have been engaged in competitions which frequently lead to conflicts. The two communities have claims different lands by tracing historical ownership backgrounds.

On the one hand, the Suri community has robust questions on lands occupied external South Sudanse forces like Tirma, Tide and Mardure. On the other hand, the Dizzi community has also

claims on the current lands occupied by the Suri community like Kibish (the current capital of Surma woreda).

… Bumi tribe of South Soudan occupied more than 70 kms of Ethiopian territory. For instance, the Tomposa Bumi tribe named the Suri land by the name of their tribe leader. This in turn led the Suri to occupy the legitimate lands of the Dizzi community. This problem produced many awful conflicts inside usually between Suri and Dizzi communities. (58 years old, male informant, from Dizzi community)

Therefore, as indicated above, many conflicts happened due to competitions on resources like grazing lands, water resources and gold mining. Both the Dizzi and Suri communities unanswered the questions of resources ownership which are causes for the existing conflicts of the area.

Illegal Trading

The areas where the Dizzi and Suri pastoralist communities lived are consecrated with natural resources of mining. There are vast resources of gold mining sites in the area. However, the production and exchange processes of gold mining are undertaken in illegal ways. There are contrabandists who are beneficial from the illegal trading. Because of this reason, there are frequent conflicts in the area.

There are organized groups or actors who run the illegal trade of gold. These actors want the conflict and produce it constantly. The actors live in Maji, Tum and Dimma and work day and night without rest to fabricate the conflict. There is killing in the mining area. Devised arrangement of prices is the main strategy for these groups. These actors sold product items like local alcohols, soap and salt to the local community as means of handling the community. Their ultimate objective is to make unstable mining exchange thru fabricating conflict. If the market is stable, they could not access the gold mining and cattle in a cheap cost. Thus, they catch up the local community through the distribution of cheap product for daily consumption and in turn benefit themselves from the mining and cattle exchange. Contrabandist who is engaged in the area form such types of linkage and prevents free movement. They did not lose their life but others loss their life from the conflict. A concerned official from SW regional state explained the issue as:

…For example for the Suri community, if they access/buying one litter local alcohol (Areqi), they can sell their gold with very cheap cost. On the other hand, if there is stable market, they can buy the Areqi in a normal cost and the amount they want. If market stability is ensured, the contrabandists who produce conflict couldn't be beneficial. That is why these people are busy to fabricate conflict in the area. (46 years old male informant from SW regional state)

Illegal fire arming

Illegal fire arm exchange and distribution is another factor for apparent conflict of the area. There is massive exchange of fire arm in the border area. These situations aggravate the conflict and make it unresolved. There is market opened for this purpose. There are great pivot state actors in the exchange. Murele, Ngangatom and Tomposa tribes of South Sudan are the larger firearm sources and exchangers in the area. These tribes have too similar culture with Suri and Dizzi communities of Ethiopia. This cultural similarity makes the exchange of firearm easy. In return, the Suri and Dizzi communities highly armed with firearms.

Conflict Aggravating Role of Government Bodies officials

In principle, the government officials assigned at different levels have official mandates to prevent and resolve conflicts. However, government officials in South West Ethiopia regional state play an aggravating role of existing conflicts of the area as shown in different conflict incidents. This is especially true among officials who were born and grown up among the Dizzi and Suri communities. Many conflict cases were produced and escalated in this regard. The circumstance is described by the informant as:

...Officials of Suri and Dizzi weredas are administered and appointed by similar parties. Both of them have given authorized mandates of handling conflicts. However, they are standing on the side of conflict actors. Instead of enforcing the law, they favor to criminal groups because of their ethnic and tribal affiliation. In this type of mindset, it is difficult to prevent and resolve conflict. (49 years male official from West Omo Zone)

Not only the local woreda officials, but also officials who are appointed at zonal, regional and federal levels are found to involve in conflict cases. An informant described the situation as:

...Not only the local woreda level officials but also higher officials working at Regional and federal level are reluctant and sometimes support the conflict via esteeming their community. This problem is more pronounced among the Suri officials. For instance, once upon a time a Suri representative at federal parliament was accused when he tried to systematically organize the Suri warrior group for conflict. (46 years old male official at South West Ethiopia regional state)

The following direct account of the informant also strengthens the above claims as:

"... In 2020, the suri warrior group robbed cattle from Dizzi community members. A suri official working at zonal level was sent to mediate and resolve the problem. However, instead of mediating and resolving the problem, he joined the robber group and not come back yet. (44 Years old Male official from SW regional state)

Therefore, as to the lived experiences and views of the above informants, in many cases, government officials at different levels favored their community during conflict incidents. According to them, the ways they support the conflict is different. Some of them intentionally and systematically support the actors of the conflict whom they believed is from their ethnic group. Some others are victims of the existing harmful social traditions of the community and hence are very reluctant to change these harmful traditional practices that lead to conflict. They accept revenge as normal culture of the community. If they oppose such types of criminal activities, they will be targets of attack. Thus, they stand in favor of the criminals and their acts due to either the fearing of attack from criminals in their community or inherently support the established cultural tradition of their community. Some others support the conflict because of their involvement in contraband trades of gold mining. To this end, they thought that conflict is a strategy to hide their illegal activity.

Conflict Aggravating Roles of Security Forces

The security sector forces that are operating in the area have played different role for the long lasting conflict. The regional security forces and federal police play positive contributions to manage and resolve the existing conflicts. However, the local security forces including the woreda polices and militias have a negative contribution to handle and resolve conflicts. These groups have deep rooted cultural attachments with their community. Furthermore, some members of the local security forces participate in the conflict using the guns of the government they are given for crime prevention. They also share their gun for their community members. Some others become a bandit by themselves. An informant disclosed the following account on the issue:

… There are handled cases that showed that polices hired at woreda working in contradiction with the responsibility they are assigned for. Thus, preserving peace and security by the deployment of local security forces like police and militias is too difficult. They ignore their responsibility of preventing and resolving crime and stand in favor of their community during different crime incidents. For instance once up one a time, a suri police is arrested while he robbed cattle with his warrior group. (A 39 years old male security sector head from West Omo Zone)

Supporting the above points, another informant also revealed the following idea.

...Instead of preventing and ensuring rule of law, the local security forces participate and aggravate the conflict. For instance, militias of the two woredas were arrested after they are involved in cattle robbing. Also, in 2020, 25 polices of Surma woreda were arrested for cattle robbing. Others share gun for the warrior groups for robbing purpose. (A 41 years old male informant from West Omo Zone)

In connection with the above arguments, there are three problems. On one hand, the local security forces have very low understanding and skill towards the problem. On the other hand, these forces are victims of the established harmful traditions of the community forced to go in line with the criminals. In other words they internalize the traditions of their community so that they do or support the acts of the criminals. Finally, if they hesitate to support the traditions of the local community that lead to conflict, they will face different problems including killing in return. Due to these problems, in contradiction with the role of enforcing rule of law, the local security forces are negative actors of the conflict. In nutshell, the conflict between Dizzi and Suri communities become long lasting and headache.

Consequences of Dizzi-Suri Inter-ethnic Pastoralist Conflicts

Conflicts happened between Dizzi and Suri communities resulted in more devastating and look harsh. These conflicts are resulted in social, economic and political crisis of the nation in general and communities lived in the nation in particular. The Dizzi and Suri pastoralist communities of SW Ethiopia suffered a lot in this regard.

Social Crisis

Due to the ongoing conflicts, many social crisis are resulted in the South west Ethiopia. Accordingly, the neighboring Dizzi and Suri pastoralist communities faced a lot from the enduring conflicts. Many people lost their life and many other became physically impaired. Displacement and erosion of social bonds of the community were also foremost impacts of the conflicts. Likewise, the conflicts have ensued in dysfunctional of basic public institutions like schools and health centers. Finally, negative social traditions like feeling of enemy, marginalization and revenge have been developed gradually.

Loss of Human Life

Internally, many people lost their life with in the last five years. Both the Suri and Dizzi community members lost their life in different times. The figurative report compiled by the SW Ethiopia regional state peace and security bureau clearly showed the severity of the problem. The bureau has undertaken a benchmark assessment in 2020 to know the number of people died due to the Dizzi-Suri internal conflicts taking 452 consecutive days. According to this assessment, within 452 days benchmarking from September 2020 to December 2021, the death rate recorded due to the conflict was one person per two days. According to this assessment result, the magnitude of the problem resulted from the conflict is too devastative. Besides, many people became physically impaired. In addition to this, an official from concerned regional bureau disclosed his information as:

The frequent conflicts happened among pastoralist communities of West Omo zone of our region resulted in the loss of life of many people. The Dizzi-Suri conflict took the highest share in terms of death of life as compared with other pastoralist communities of the zone. We have different evidences for this. For instance, from 2011-2013 E.C up to 500 people were died from which majority of them were young and children that leads to the loss of productive age groups as a result of the conflict. (46 years old male official from SW Ethiopia regional state)

For some informants, the conflict is the devastative effects of the Suri-Dizzi conflict make them hapless because they couldn't manage it. An informant from South West Ethiopia Police Commission extends his account as:

...For the last 30 years, I had been working in the area in different police positions. I have tried to manage the conflicts happened between Dizzi and Suri communities but it were not effective. The actors and causes of conflict in the area are very complicated. I saw while people died and wounded due to the conflict. What I feel today is I am very happy to die after solving this everlasting and bloody conflict. This is my dream in my life. (A 46 years old male higher police leader from South West Ethiopia regional state.

Therefore, according to the above informants account, both the internal and external conflict happened in the area ended up with loss of human life. As the figure revealed by the informants' speaks loudly, many people lost their life due to the incident. Many others became physically impaired. Thus, it can be said that the conflict happened among the Dizzi-Suri pastoralist communities caused sophisticated humanitarian crisis.

Erosion and Disruption of Social Interaction

In the past, the Dizzi and Suri pastoralist communities had close social interaction. The communities were unified with inter-marriage. They had celebrated different cultural rituals together. However, for the last 30 years in general and for the last 5 years in particular, the escalated conflict affected this good social interaction of the two communities. In other words, the social interaction between Dizzi and Suri community is highly eroded due to the extended conflict happened between them. Today, they are seen as enemies of one another and the community members are skeptical to each other. The case is narrated by the informant as:

...The former social solidarity of Dizzi and Suri communities are highly eroded due to the frequent conflicts occurred between them. The social bond is highly broken. Social interaction in common market places is disrupted. They are seen as enemies of one another. (46 years old male official from SW Ethiopia regional state)

In addition with the collected primary data, the secondary data collected from concerned government offices also asserted the magnitude of the effect. As indicated by Bench Maji zone peace command post in 2013, 998 people from Suri community lost their life due to the Toposa Bumi tribe attacks of South Sudan from 1983 to 2013 E.C. Besides, 548 people are injured due to the external forces attack with in the mentioned time frames.

Displacement

Among the Dizzi and Suri communities, there is massive community displacement from their own original territory due to the conflicts broke out in different times. The suri community displaced from Mardur and its surrounding due to forceful attack from Toposa Bumi. Likewise, as to the informants from Dizzi community, the Dizzi community members displaced from 14 kebeles of their own due to Suri community spasm. The Dizzi community also evacuated from productive mining areas.

Economic Crisis

The conflicts happened in different times negatively affect the livelihood strategies of the local communities. It damaged the basic economic assets of the two communities. Livestock are robbed; economic gains from mining of the area are subjected for misuse and corruption; important grazing lands and water resources are took by external forces in unlawful manner. An informant expressed his view as:

Cattle which are considered as lives of the Dizzi and Surma pastoralist communities are robbed and killed due to the conflict. The community in particular and the government in general lost economic gains due to the established illegal gold mining exchange of contrabandists operating in the conflicting setting. (36 years male informant from Surma woreda)

In line with the primary data, a report from surma wereda police station had also indicated that in 2013 E.C two thatched grass houses were burned, 58 cattle robed. In nutshell, total estimated values of 25,670 dollar properties were damaged. Also, as indicated by Bench Maji zone peace command post in 2013, a total of 40,334 livestock of the Suri community are robbed by these forces. Many houses were looted and large members of the community were displaced due to the attacks in 2013.

Political Crisis

As indicated earlier, Because of the absence of border security; the pastoral community of South Sudan called Toposa Bumi crossed the Ethiopian border and looted the Suri community's livestock. The federal government could not protect the south western border of Ethiopia. Unlike

the other border areas of the country, there are not military camps and military forces in the Southern western border. Due to these reasons, the people living in the area are denying the existence of Federal government. They thought that if the federal government couldn't protect its territory in the border area, its existence is questionable. Such type of feeling is very common among the majority of the Dizzi and Suri community. An informant disclosed his as:

Protecting the border is the mandate of the federal government. Who gave the mandate of protecting the border area for the Suri community? The federal government is reluctant to protect the South West Ethiopia border. The local government reported the case for the federal government in different times but unanswered. Now a days, the conflict happened in the area took political implications. Due to this reason, the local community lost hope towards the federal government (44 years old male informant from Surma Woreda)

In connection with this, the local communities are feeling as if they are politically marginalized by the federal government. Because there is a commonly agreed belief among the local community that the federal government is intentionally left the border without military protection for the last 30 years. They further questioned that why the Suri and Dizzi communities are struggled with external enemies in the border area? An informant further reflected the communities view as:

...The official mandate of protecting the border clearly belongs to the federal government. The government has military camps in other border area but ignored the South Western border. Why? Who gave the mandate to Suri and Dizzi pastoralist communities to protect the South Western border? They are always fighting with external forces unlawfully. A 39 years old informant from West Omo zone)

Therefore, based on the above informants' accounts, significant portion of the local communities land is occupied by the invaders illegally. The Suri and Dizzi communities accused the Federal government as if the border is intentionally ignored for external invasion. Due to these reasons, both the Dizzi and Suri communities have sense of political marginalization and develop distrust on the Federal government. Not only the communities but also government officials at regional, zonal and woreda who are administrating the area have grievances towards the federal government reluctant reaction to solve the border problem of South West Ethiopia.

Conflict Resolution Mechanisms of Dizzi-Suri Inter-ethnic Pastoralist Conflicts

Starting from 2022, serious and multidimensional conflict prevention and resolution efforts have been applied to manage the potential conflict causes and actual conflict cases happened between Suri and Dizzi pastoral communities.

Peace Campaigns through Peace Committees

For the last two years, peace campaign is taken as important conflict resolution tool. There were mass peace campaigns with a motto "let us make a single day peace" so as to avoid a single death per a day. The campaigns stayed for about two years and still they are ongoing. To this end, peace committees are formed at Kebele, woreda, zonal and regional levels. Using this mechanism, awareness raising and community consultation sessions were held in this regard.

Reconciliation

So far, many reconciliation activities were took place to resolve both the internal and external conflicts. Reconciliation attempts were made with external forces with the assumption if the conflicts or attacks that caused internal conflicts are solved, internal conflicts and their causes could be easily managed. Having this assumption, though there were not effective, the regional and local administrations of the area arranged many reconciliation sessions with external forces specifically between the Suri and Toposa Bumi tribes around the border area and outside the border areas. Similar reconciliation attempts were made between Suri and Dizzi communities so as to return robbed cattle. In fact, some cattle were returned through the effort. Different efforts have been made to rebuild the social solidarity of the community through establishment of mutual market center, celebration of cultural rituals and cultural exchange. However, it was not effective, long lasting and sustainable.

Changing the Established Cultural Traditions of the Community

Efforts were made to change the established harmful traditional practices of the communities through different mechanisms like education, urbanization and Cultural Revolution so as to end up the conflicts. Efforts were made to reduce the established cultural traditions of providing huge amount of dowry during marriage arrangement. However, due to the embedded nature of the established traditions, the intervention was not as such effective.

Resettlement

To improve the living way of the community, resettlement in villages was taken as a mechanism to handle the conflict. However, it was not successful due to the unwillingness of the community. The following informant's account strengthened the issue as:

...At Regional level, we had built the house and grouped them in to the village, but they have lived for a while and backed to their nomadic life. Because, South Sudan tribe of Toposa attacked and killed mass of children women and looted property. They had demolished the camp.(44 years old male official from SW Ethiopia regional state)

Efforts to solve the border Conflict

Though the issue of the border is the official mandate of the federal government of Ethiopia, different efforts has been made to solve the problems of the area at regional, zonal and woreda levels. Accordingly, Strengthen social cohesion between the communities of Ethiopia and South Sudan in the border area was taken as a conflict resolution mechanism in the area.

8. Recommendations

The Need to protect Border Attacks

- The Federal government of Ethiopia should take the mandate of protecting the South West Ethiopia from external attacks. Thus, opening of the closed military camps around the border area should be an important mechanism to resolve the existing conflict. Border military camps should be established. ENDF should deploy in the area to protect external forces attack.

Making the Government Bodies Impartial

Strong intervention should be in placed to make government bodies impartial and work based on the official mandate they are given. Serious measurements should be taken on government bodies who favor their social categories.

The Need to Change Harmful Traditions of the Community

- Extensive awareness creation activities should be given by the government and NGOs to change the established harmful rational practices that lead to conflict
- The rigged tradition of revenge should be addressed and changed through different mechanisms like community consultation.

The Need to Genuine Reconciliations

- To divert the negative feeling and social interaction, genuine reconciliation is too paramount to resolve the conflict and associated feeling from its sources. Thus, elders, tribe leaders and iconic individuals of the two communities should be consulted to resolve the inter-ethnic pastoralist conflict of Dizzi and Suri communities. To this end, far-reaching community consultation should be taken as an effective peace tool and mechanism to handle and resolve conflict at its grass root level.
- Government bodies, NGOs and religious institutions should take the initiation towards genuine reconciliation.

The Need to Resettlement

- Resettling the community in villages and benefiting those from the services of basic social institution can alter their way of life and confrontation to conflicting causes.
- Resettlement should be taken as a resolution mechanism so as to educate the community and it could pave the way for the pastoral communities to modernization and urbanization.
- Government bodies and other development intervene actors should work towards it.

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Epestimicide, Extraversion, and the African University: Some Conceptual Considerations

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Abstract

This paper probed into the intricate nexus between epistemicide, extraversion, and the African university, elucidating the enduring colonial entanglements shaping these institutions in the post-colonial milieu. The central thesis posits that African universities, originally established as colonial outposts to propagate imperialist epistemologies, had persistently failed to extricate themselves from these colonial legacies, resulting in profound epistemic and institutional extraversion. Employing a philosophical methodology underpinned by an extensive review of extant literature and discursive analysis. This study critically interrogated the historical and contemporary dynamics of epistemicide—the systematic eradication of indigenous knowledge and intellectual traditions—and its ramifications for the epistemic autonomy of African higher education institutions. The analysis foregrounds how the structural and epistemic configurations of African universities remained fundamentally tethered to colonial paradigms, thereby perpetuating a hegemonic knowledge hierarchy that marginalized indigenous epistemologies. This epistemic subjugation was examined through the lens of extraversion, a concept describing the external orientation and dependency of African universities on Western intellectual frameworks, funding mechanisms, and pedagogical models. The paper argued that this extraversion exacerbated the epistemic dissonance and reinforces the colonialists of knowledge within these institutions. Through a discursive analysis, the study interrogated the ideological underpinnings and institutional practices that sustained this epistemic dependency, revealed how policies, curricula, and research agendas were often dictated by extrinsic, predominantly western, epistemic norms. In conclusion, this paper contended that the African universities inabiled to disentangle themselves from their colonial origins necessitated a radical rethinking of their epistemic foundations. It called for a decolonial praxis that reclaimed indigenous epistemologies, fostered an autonomous and contextually relevant intellectual environment. The implications were profound, underscored the need for a transformative agenda that challenged the entrenched coloniality of knowledge and advocated for the epistemic liberation of African higher education.

Key Words: Epestimicide, Extraversion, African University

Introduction

The epistemic challenges of the 21st century can be aptly described through the concept of the 'epistemic line,' which directly extends from W.E.B. Du Bois's notion of the 'color line' that characterized the 20th century and catalyzed monumental struggles for political decolonization. This linkage between the 'color line' and the 'epistemic line' is rooted in the racist denial of humanity to those subjected to enslavement and colonization, as articulated by Ndlovu-Gatsheni (2018), "The denial of humanity automatically disqualified one from epistemic virtue." This epistemic demarcation is upheld by what Boaventura de Sousa Santos (2007) terms 'abyssal thinking'—an imperial rationale that relegates certain human beings to a sub-human status devoid of knowledge. Consequently, the epistemic line is inherently an ontological divide, delineating whose knowledge is recognized and whose is marginalized.

The colonization of Africa transcended political and economic subjugation, extending into a systematic disruption of the continent's epistemological framework (Mamdani, 1996). Through the deliberate suppression and obliteration of indigenous knowledge systems, colonizers inflicted a profound and enduring epistemic injury upon African societies, a process termed epistemicide. Hountondji (1997) points out that despite the growing discourse on a global knowledge economy, this globalized knowledge still emanates from identifiable centers in Europe and North America. A historically entrenched asymmetrical division of intellectual labor perpetuates this epistemic hegemony. Within this context, African scholars often serve as 'hunter-gatherers' of raw data and 'native informants,' while the processing of this data into theoretical frameworks occurs in Europe and North America, with Africa serving as a testing ground for these imported theories. The epistemological conquest of the Global South by European colonizers involved not only the appropriation of tangible resources but also the transformation of the knowledge landscape to support their imperialist ideologies. This epistemicide manifests in various forms, including the silencing and erasure of Third World knowledge systems and the coercion of partially overlapping knowledge systems into conforming with dominant ideologies.

From the perspective of marginalized groups, the historical trajectory of global capitalism, colonialism, and patriarchy is marked by systemic delusion, characterized by appropriation under the guise of liberation, violence masquerading as peace, and violations of human rights purportedly in their defense. The institution of slavery, central to colonial exploitation, intensified the epistemic violence against Africans, underpinning a hierarchical logic of domination justified by pseudoscientific theories and colonial ideologies. This constructed ontological hierarchy continues to influence power dynamics and knowledge production in post-colonial contexts.

The term epistemicide, coined by Boaventura de Sousa Santos in his seminal work "Epistemologies of the South: Justice against Epistemicide" (2014), refers to the systematic destruction of existing knowledge systems and the erasure of traditional and indigenous knowledge sources to impose a Western intellectual discourse. De Sousa Santos (2005) further asserts that "in the name of modern science, many alternative knowledges and sciences have been destroyed", and the social groups that relied on these systems for their autonomous development paths have been humiliated. In essence, epistemicide has been committed in the name of science, with imperial powers utilizing it to "dismantle any resistance from the conquered peoples and social groups" (Masaka, 2019:287).

Epistemicide serves as a strategy for hegemonic groups to deny the humanity of the dominated population. The recognition of attempts by dominant cultures to annihilate the knowledge paradigms of subjugated peoples predates de Sousa Santos's (2005) naming of this phenomenon (Hountondji, 1990; Taiwo, 1993). Any knowledge paradigm that does not align with the dominant group's canon is rejected and suppressed. Nyamnjoh (2012) describes epistemicide as "the decimation or near-complete eradication and replacement of indigenous epistemologies with the conqueror's epistemological paradigm" (p. 129). The dominant group assumes the role of the sole arbiter of what constitutes knowledge. One knowledge paradigm that reflects the existential reality of a specific geopolitical center is elevated to a transcultural standard, thereby silencing the knowledge paradigms of other geopolitical centers (Santos, 2006).

Concurrent with epistemic ide, the concept of extraversion describes a scenario where economic, intellectual, and educational activities are structured to mirror external goals and forces rather than internal needs. Economic activities are thus oriented primarily towards the interests of the economically dominant North, particularly Europe and North America. This extends to intellectual activities, which are anchored around the idea of universality. While this approach may not be inherently flawed, its ability to address the educational goals of the Global South, and African countries in particular, is questionable. Research and teaching in African countries often mimic those of the North, impeding their ability to address local problems effectively (Bekele, 2007:108).

The historical emergence and continuous linkage of intellectual activity in Africa to the North underscores this extraversion. Tertiary education in Africa, often established during colonial times, reflects this dependency. Some universities, like those in East Africa and Ghana, were outposts of metropolitan institutions such as the University of London. Perhaps Ethiopia itself, which prides as never being colonized, established its first college in 1950, during the waning days of colonialism elsewhere in Africa. Canadian Jesuit missionaries were tasked with establishing Ethiopia's higher education institution (ibid). Universities established in the latter half of the 20th century to meet contemporary demands have evolved significantly but struggle to disentangle themselves from their historical foundations. They face challenges in embarking

on independent paths in terms of curricula and research agendas. If allowed to fully develop, African universities could play a pivotal role in addressing these challenges, cultivating both the intellectual and practical knowledge necessary for development. The African university must assume a critical role in fostering subjectivity and development, thereby contributing to overcoming the epistemic and extraversion challenges that continue to impede progress (Bekele, 2015).

Conceptual Framework

The modern international higher education system, however, finds its primary roots in Europe. Medieval centers of higher learning in Italy, France, and Germany, and later in northern Europe, were predominantly religious institutions. Some evolved into early centers of legal and medical study, while the skills of documentation, composition, and argument taught at these universities produced a clerical and administrative workforce vital to the emerging national states of Europe (Bird, 2023).

The expansion of European empires from the sixteenth century initially had limited impact on universities. By the early twentieth century, public universities had proliferated across the colonial world, adopting curricula from the metropole but with minimal research capacity (Patel, 2023).

Encouraged by UNESCO, postcolonial governments began to view universities as instruments of national development, capable of generating locally relevant knowledge and producing a professional workforce. This has resulted in a global yet highly unequal university system in the early twenty-first century. A Eurocentric curriculum prevails almost everywhere, with English increasingly becoming the language of instruction in elite universities, even in non-Anglophone countries like. The production of organized knowledge is a global endeavor, but the most prestigious and influential centers remain predominantly in the global North, particularly in Europe and the United States (Ndofirepi & Cross, 2014). This global division of labor in knowledge production, wherein the periphery primarily supplies data and applies knowledge, while the metropole processes data into theory and develops applications, underpins the modern system of organized knowledge and perpetuates inequalities between the global North and South (Connell, 2017).

The institution of slavery, a cornerstone of colonial exploitation, further amplified the epistemic violence inflicted upon Africans. This logic of domination, underpinned by pseudoscientific theories and colonial ideologies, justified the dehumanization and erasure of African identities, establishing an ontological hierarchy that continues to shape power dynamics and knowledge production in post-colonial contexts. Language, as a repository of cultural heritage, knowledge, and identity, suffered significant marginalization during colonization, leading to the erosion of

cultural memory and disruption of intergenerational knowledge transmission. Ngugi wa Thiong'o articulates this linguistic suppression as a form of epistemic violence that perpetuates the dominance of colonial languages and epistemological frameworks. The colonial education system was designed to instill Western values, norms, and knowledge while denigrating indigenous African knowledge systems, a legacy that continues to influence curricula, research agendas, and academic discourse in many African countries (Ngugi, 1986).

Frantz Fanon (1952) provides a framework for understanding the psychological effects of colonialism and the necessity of both mental and physical liberation in the decolonization process. He argues that the "black man" is made to feel inferior through cultural imposition and racial stereotyping, leading to an internalization of inferiority, which he calls "epidermalization." Fanon advocates for the "disalienation of the black man from himself," rejecting the imposed definitions of blackness and reclaiming one's identity. This psychological liberation is crucial for decolonization, allowing individuals to break free from the mental shackles of colonialism and embrace their cultural identity. This aligns with Ngugi's advocacy for reclaiming African languages as a means of decolonizing the mind, challenging cultural hegemony, and reclaiming cultural heritage. Both Fanon and Ngugi emphasize that decolonization is not merely a political or economic process but also a deeply personal and psychological one, involving the rejection of internalized inferiority, reclaiming agency, and embracing one's cultural identity.

The African university can play a key role in overcoming these challenges if it is allowed to develop autonomously, cultivating both the intellectual and practical knowledge necessary for development. The African university must assume a critical role in fostering subjectivity and development, thereby contributing to overcoming the epistemic and extraversion challenges that continue to impede progress.

Epistemicide in African Universities

African universities, with the notable exceptions of those in Northern Africa and the Republic of South Africa, have a relatively recent history, dating back just over half a century. Many of these institutions were established in the final years of colonial rule, with a clear objective: to train personnel capable of sustaining the colonial administration. (Bekele, 2015; Badat, 2023). The rapid establishment of numerous other universities during this period reflects this historical context. This origin story is crucial in understanding the inherent challenges faced by African universities, which remain entangled in their colonial legacy. These institutions were not designed to address the real problems of African societies; instead, they were tools of colonial governance (Bekele, 2013).

This historical baggage has prevented them from achieving true self-assertiveness and independence. Furthermore, postcolonial African governments, which inherited or newly

established these universities, have often failed to provide the necessary conditions for them to function independently

The global higher education system is characterized by significant inequalities between the universities of the global North, or the metropole, and those in the diverse periphery, often referred to as the global South. These disparities are not merely quantitative but are deeply rooted in a global division of labor in knowledge production that dates back to the history of modern science and remain potent today. The periphery's role has traditionally been to supply raw data and subsequently apply the knowledge developed from this data in the form of technology and methods (Newman, 2023). In contrast, the metropole not only produces data but also collates and processes it into theory and methodology, which are then exported back to the periphery (Connell, 2017:6). African universities, often seen as centers of enlightenment and progress, paradoxically perpetuate epistemic ide. This phenomenon is deeply embedded in the colonial history of African higher education, where curricula, pedagogies, and institutional frameworks were established predominantly by colonial powers, prioritizing Western epistemologies and marginalizing indigenous intellectual traditions. This entrenched academic hegemony continues today, manifesting through Eurocentric curricula, the marginalization of African languages in scholarly discourse, and the lack of institutional support for research grounded in indigenous knowledge systems. Consequently, African universities contribute to epistemic violence, undermining the intellectual sovereignty and cultural heritage of African societies.

The pervasive influence of global academic standards and the quest for international recognition exacerbate this epistemic ide. African universities often orient their research agendas and academic programs towards validation by Western academic institutions, which are perceived as gatekeepers of global knowledge production. This reinforces Western epistemological dominance and diverts resources from locally relevant research that could address pressing socio-economic and cultural challenges. Dependence on foreign funding and the pressure to publish in international journals further entrench this dependency, stifling the development of autonomous and contextually relevant knowledge systems.

As a result, African universities remain complicit in the perpetuation of epistemic ide, inhibiting the intellectual and cultural resurgence necessary for a truly decolonized and emancipated African academic landscape.

Africa has experienced not only colonial genocides but also what has been termed the "theft of history" (Goody, 2006), epistemic ides, and linguicism (the killing of indigenous languages) (Ngugi, 2009a, 2009b). Therefore, African epistemic struggles are both longstanding and contemporary. They are longstanding as they began with colonial encounters and contemporary as they are re-emerging amidst a global systemic and epistemic crisis. The project of

epistemological decolonization involves both 'provincializing Europe' and 'DE provincializing Africa' (Ndlovu-Gatsheni, 2018). These processes are intertwined, aiming to reframe what is considered globally as European thought as part of a shared human heritage rather than the product of a single geographical center. 'Provincializing' involves "moving the center," a concept borrowed from Ngugi wa Thiong'o (1993).

Western enlightenment thought has historically posited itself as the source of universal learning, science, and philosophy, relegating the non-Western world—variously termed the ancient, the orient, the primitive, the third world, the underdeveloped, the developing, and now the global south—to a place of parochial wisdom, antiquarian traditions, and exotic customs (Comaroff and Comaroff, 2012:1). This dominant narrative has overshadowed the rich and diverse intellectual traditions of the global South, perpetuating a skewed global epistemic order that African universities are striving to rectify.

The Extraverted Nature of the Universities

Contemporary universities are formidable institutions interconnected on a global scale, yet they perpetuate a narrow knowledge system that mirrors and exacerbates global social inequalities. The current neoliberal framework governing university finance, management, and labor further narrows this knowledge system and solidifies institutional hierarchies (Connell, 2017:10). At their inception, African countries lacked the trained manpower, knowledge, and infrastructure required to establish tertiary-level education independently.

This historical context explains the initial establishment of these institutions but does not justify their continued dependence on Northern centers. To fully understand the nature of this education and its extraverted condition, one must examine the content taught, the curriculum design, educational objectives, and the knowledge, skills, and values imparted to the youth of these countries (Bekele, 2007:110).

The curricula of newly established African universities were often imported from the metropole. This resulted in an education system that alienated African youth from their culture and identity by focusing on material largely irrelevant to their local context. The Eurocentric curriculum promoted a hierarchy of cultures, deeming indigenous values and traditions as backward, and aimed to replace them with so-called progressive and "universal" knowledge. This mission effectively robbed African youth of their identity, pride, and confidence by undermining the value of their own culture and history

The entrenched North-South relations and dependency have hindered African countries from developing independent thought and knowledge production. Most African nations remain dependent on the North, which undermines their ability to think autonomously. This dependency

was further compounded by the belief that adopting Western models of development would be beneficial. While Western science and technology are undeniably important, African countries have struggled to indigenize externally produced knowledge to address local issues. This reliance on external intellectual frameworks has rendered African educational efforts largely superfluous, as they merely serve as extensions of metropolitan universities and research institutes. Instead of formulating context-specific questions and solutions, African universities have been preoccupied with echoing ideas generated elsewhere

The failure to understand the purpose and beneficiaries of knowledge production has led to a comfort in reproducing existing knowledge rather than creating new insights. This tendency is rooted in the assumption that knowledge is universal, and local particularities are not legitimate subjects of scholarly inquiry. This mentality has resulted in a continuous cycle of intellectual dependence, preventing African scholars from acting independently. Hountondji (2002) highlights this by noting that research institutions in the periphery often function as annexes to those in the center, addressing questions of interest primarily to the mother institutions or their sponsors.

One reason for this extraversion is the conviction in the absolute truths of Western prejudices and abuses. Africans convinced themselves they were outside history and humanity, following the philosophical tenets of Kant, Hume, and Hegel. Embracing continental philosophy as the path to true humanity led to the destruction of essential African attributes. Without self-respect or respect for their values, Africans could not expect meaningful progress. This self-denial, alongside economic and structural factors, explains the persistence of extraversion in various fields.

African modernization efforts through education have often begun with self-denial, accepting Western prejudices as a prerequisite for progress. This approach overlooks the possibility of modernizing from within, respecting and incorporating local cultures and values. The uncritical acceptance of a singular, homogeneous cultural model has denied the plurality of human experiences, prioritizing European experiences as universally applicable.

African education, from its inception, was not designed to foster modernization but to establish outposts of metropolitan universities. Colonial ideologies aimed to "dehumanize Africans" by denying their history and achievements, claiming universalism for Western culture, and provoking resistance (Mkandawire, 2005). When Africans accept these dehumanizing ideas, the damage to their intellectual autonomy is profound. Instead of serving as agents of change, educational institutions become instruments of denigration, perpetuating elitism and failing to address the needs of the vast majority.

The Epistemicide-Extraversion Symbiosis

The African university, as an institution, operates within a complex interplay of epistemicide and extraversion that perpetuates both the marginalization of indigenous knowledge systems and the dependency on Western epistemologies. This symbiotic relationship has historical roots in the colonial project, which established educational frameworks designed to serve colonial interests rather than foster indigenous intellectual autonomy.

The symbiosis between epistemicide and extraversion creates a self-perpetuating cycle that reinforces the dominance of Western epistemologies and marginalizes indigenous knowledge systems. Epistemicide ensures that African universities remain dependent on Western frameworks, while extraversion further entrenches this dependency by aligning academic and research priorities with external interests. This cycle is maintained through various mechanisms, including funding structures, publication norms, and the global academic prestige economy.

For instance, the reliance on foreign funding for research projects often comes with conditions that dictate the focus and methodology of the research. This external control over research agendas limits the ability of African scholars to pursue inquiries that are locally relevant and culturally resonant. Additionally, the pressure to publish in international journals, which are predominantly based in the global North, forces African academics to conform to Western academic standards and paradigms. This not only marginalizes alternative epistemologies but also perpetuates the view that Western knowledge is superior and universally applicable.

The epistemic ide-extraversion symbiosis has profound implications for the role and function of the African university. It undermines the institution's ability to generate knowledge that is relevant to local contexts and responsive to the needs of African societies. Furthermore, it perpetuates intellectual dependency, preventing the development of a robust, autonomous academic tradition that can challenge and complement Western epistemologies.

To break this cycle, African universities must actively work towards decolonizing their curricula, research agendas, and institutional structures. This involves not only reclaiming and revitalizing indigenous knowledge systems but also fostering an environment that encourages intellectual autonomy and critical engagement with global knowledge systems. Establishing equitable partnerships with international institutions, promoting research that addresses local challenges and valuing publications in regional journals are steps towards achieving this goal.

Furthermore, the symbiosis presents a significant challenge to the African university, constraining its potential to serve as a catalyst for local development and intellectual independence. By recognizing and addressing this symbiotic relationship, African universities can begin to reclaim their epistemic sovereignty and contribute to a more inclusive and equitable

global knowledge system. This requires a concerted effort to decolonize education, promote indigenous knowledge, and resist the pervasive influence of external validation. Only through such transformative actions can the African university fulfill its role as a true beacon of enlightenment and progress for the continent.

Pushing the Decolonization Frontier

The restricted understanding of decolonization, when viewed merely through a political lens, offers limited utility for our discourse. In recent years, the decolonization of knowledge production has emerged as a significant topic of discussion both within academia and broader society (Smith 1999, Arowosegbe 2016, Mbembe 2016, Nyamnjoh 2017, Ndlovu-Gatsheni 2018, Santos 2018). Although the decolonization agenda has been a component of postcolonial studies for over several decades, the contemporary focus was notably invigorated by the '#Rhodes Must Fall' movement in South Africa in 2015. This movement began at the University of Cape Town with students successfully demanding the removal of the imperialist Cecil Rhodes statue, subsequently inspiring similar protests across South Africa and globally, including the Oxford 'Rhodes Must Fall' movement, with broader demands for the decolonization of higher education.

These discussions, however, are not unprecedented. Sixty years ago, Ghana's first president and pan-Africanist leader, Dr. Kwame Nkrumah, underscored the significance of Africa-centered knowledge by establishing the Institute of African Studies at the University of Ghana. In the early 1980s, Nigerian political scientist Claude Ake advocated for endogenous knowledge production on Africa. Despite these early initiatives, progress since the independence era has been sluggish. Current calls to decolonize African knowledge production relate to colonial practices of power and domination, highlighting that six decades of political independence have not fundamentally altered power dynamics between higher education institutions in the Global South and North. The continued dominance of non-African scholars in leading journals on African issues is particularly striking. As Arowosegbe (2016: 324) observes, the production of knowledge on Africa in the humanities and social sciences occurs within historically determined and ongoing asymmetrical power relations.

Despite the persistence of such imbalances, it is crucial to acknowledge the historical context of these decolonization efforts. Mai-Bornu and Landström (2021) emphasize that the contemporary calls for decolonizing knowledge production are not new. Despite more than six decades of political independence in much of sub-Saharan Africa, knowledge production remains characterized by stark power asymmetries.

These asymmetries, as Arowosegbe (2016: 324) asserts, are both historically rooted in colonial relations and persist today in visible and covert forms. The decolonization of knowledge remains

imperative from a justice perspective. Enduring injustices manifest in two primary forms: unequal access to resources and opportunities between scholars from the Global North and South, and epistemic injustice, which questions "whose knowledge counts." Many voices and perspectives, especially from marginalized communities and less powerful institutions, remain unheard and unrecognized.

Addressing these dual injustices—resource disparity and epistemic exclusion—is crucial for a holistic understanding of decolonization. The concept of decolonization must consider the dual effects of epistemicide and extraversion on the African university. Epistemicide as a one that involves the systematic erasure of indigenous knowledge systems, while extraversion reflects the dependency on and orientation towards Western epistemologies. Together, these forces perpetuate a cycle of intellectual dependency and marginalization. African universities, thus, remain entangled in a complex web of historical and contemporary power dynamics that undermine their potential for intellectual sovereignty and relevance.

To disrupt this cycle, African universities must actively engage in decolonizing their curricula, research agendas, and institutional structures. This requires reclaiming and revitalizing indigenous knowledge systems and fostering an environment that encourages intellectual autonomy and critical engagement with global knowledge systems. Establishing equitable partnerships with international institutions, promoting research that addresses local challenges, and valuing publications in regional journals are steps towards achieving this goal. By acknowledging and addressing the epistemicide-extraversion symbiosis, African universities can begin to reclaim their epistemic sovereignty and contribute to a more inclusive and equitable global knowledge system. This transformative process is essential for the African university to fulfill its potential as a catalyst for local development and intellectual independence.

Conclusion

Epistemic ide remains a pervasive and enduring challenge in post-colonial Africa, with the wounds inflicted by colonial violence continuing to shape the social, political, and intellectual landscapes. The critical works of DE colonial thinkers such as Frantz Fanon, Ngũgĩ wa Thiong'o, Kwasi Wiredu, and others provide essential insights and strategies for dismantling the epistemic structures that sustain neocolonialism.

Today, the imperative to counteract epistemic ide is paramount to reclaim and valorize the epistemological diversity of the world. Transforming this diversity into a potent instrument against hegemonic globalization signals a new era of bottom-up cosmopolitanism. This approach fosters intercultural dialogues and linkages, harmonizes global conversations celebrating conviviality, uniqueness, and solidarity, and counters the logic of market-driven greed,

hegemonic individualism, and the destruction of life. It moves away from Eurocentric modernity and ends the isolation of indigenous knowledge systems.

The prevailed global division of labor requires a nuanced understanding of the entwinement of knowledge in both economic and epistemic extraversion is crucial. Just as economic extraversion led to economic dependence, intellectual extraversion resulted in scientific dependence, provoking struggles for 'delinking'. Economic dependence led to 'growth without development', while scientific dependence resulted in knowledge without innovation. Intellectual extraversion thus necessitates an analysis of the scientific and technological relations of production on an international scale and a critique of the functioning of research in the periphery as it relates to the knowledge systems controlled by the affluent North (Hountondji, 2002: 161).

The academic sector has seen increasing calls to champion the decolonization of knowledge production within African universities (Kamola, 2011; Táíwò, 2012; Mbembe, 2016; Molefe, 2016; Shay, 2016; Ndofirepi & Gwaravanda, 2019). Achille Mbembe (2016) highlights the persistence of the Eurocentric epistemic canon and curricula designed to serve colonial and apartheid needs well into the liberation era, a condition that must not be normalized. He emphasizes the necessity for decolonization as the Western epistemic framework has become hegemonic (Mbembe, 2016: 32-33).

The struggle against epistemic ide and the concomitant extraversion is critical for the intellectual and cultural emancipation of African universities. By recognizing the historical and ongoing asymmetries of power in knowledge production and striving for intellectual autonomy, African universities can challenge the dominance of Western epistemologies and contribute to a more equitable and inclusive global knowledge system. This transformative process is essential for realizing the potential of African higher education as a catalyst for local development and global intellectual diversity.

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Revisiting Ethical Leadership in Social Exchange: Unearthing Thematic Inclination and Future Directions

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Abstract

Ethical leadership is a key driver of ethical and unethical behavior in organizations, and research has found that it predicts a range of subordinate outcomes such as organizational commitment, job satisfaction, prosocial helping behaviors, voice, task and job performance, and employee deviance. However, the integrated outcome of social exchange and ethical leadership is lacking. Thus, this study emphasized bibliometrically analyzing the thematic inclination and future directions of social exchange and ethical leadership. In doing so, a total of 184 articles were retrieved from the Web of Science database and used for analyses. The findings of the study revealed that the thematic trends and key concepts related to social exchange and ethical leadership. Besides, it showed the four main clusters, namely, ethical leadership, leader member exchange, leadership, and social exchange theory. The study further showed the relevance of integrating the two concepts of ethical leadership and social exchange to form a new construct, social exchange ethical leadership. It also uncovered a comprehensive framework that indicateed the antecedents and outcomes of social exchange and ethical leadership (SXEL). From the finding of this study, ethical leadership promoted customer-oriented behaviors and influenced employee behaviors and attitudes. However, integration of ethical leadership with social exchange may give different results. Thus, future researchers should empirically test trending topics, such as responsible leadership in the integrated construct of SXEL.

Keywords: Ethical Leadership, Social Exchange, Bibliometric, Thematic, FutureResearch

1. Introduction

Ethical leadership and social exchange are important for building trust and enhancing organizational performance (Qin et al., 2014). In particular, ethical leadership sets an example by encouraging great work and recognizing the interconnectedness of leaders with their employees. Ethical leadership involves leading people and making decisions based on values like fairness, accountability, trust, honesty, equality, and respect (Moore, 2022). Ethical leadership have several pleasant effects on companies' performances such as high employees efficiency, innovation and creativity, trustworthiness, credibility, (Ma et al., 2013), organizational behavior and attitudes (Nazir et al., 2018; Brown. et al., 2005; Grobler & Grobler, 2021), Customer-oriented Citizenship Behaviour (CCB) (Garba et al., 2018) organizational commitment, job satisfaction, prosocial helping behaviors, job performance, knowledge sharing (Bavik et al., 2018), and psychological safety climate (Tu et al., 2019).

Ethical actions are outcomes of ethical leadership practices and there is a reciprocal relationship between ethical leadership, and company's performance (Gu et al., (2015; Ma et al., 2013). This shows how the corpus of knowledge on this subject is still debatable and very fragmented. To address this conceptual gap and make it simpler to grasp comprehensively, it is necessary to map the academic literature on ethical leadership, particularly the ethical leadership in social exchange.

With regard to the leadership styles, Brown et al.'s (2005) conceptualized ethical leadership as a combination of transactional and transformational styles of leadership. In the earliest times, ethical leadership was closely related to charismatic and/or transformational leadership, but new studies have shown that transformational leaders can be unethical and transactional leaders can be ethical (Bhal & Dadhich, 2011). Other researchers encourage leaders to adopt a paternalistic leadership style through LMX to facilitate such results (Dhar, 2016). This controversial finding requires further investigation in relation to social exchange.

Even though, previous researchers treated social exchange as a moderator and mediator variables (eg.,Wang et al., 2020), there is a necessity to integrate with ethical leadership to form new construct, as ELSX. However, integration of ethical leadership with social exchange may give different results. Besides, social exchange theory and social learning theory can be used to study the relationship between ELSX behaviors and work engagement, creativity, and performance (Pastoriza & Ariño, 2013). Nevertheless, as far as the researchers' effort goes, satisfactory number researches were conducted on the subject, still no consistency has been revealed among subjects such as leadership, ethical leadership, leadership styles, social exchange, and LMX

(Bhal & Dadhich, 2011; Garba et al., 2018; Tu & Lu, 2016). Notably, the linkage between ethical leadership and social exchange is not well theorized yet.

From previous limited findings, EL has a positive effect on employee behavior from both a social learning and social exchange theory perspective (Grobler & Grobler, 2021). The LMX theory outlines how managers create beneficial working connections with their subordinates (Nazir et al., 2018). It distinguishes itself from other leadership theories by focusing on the relationship between leaders and their followers, which is unique in terms of its quality (Lord et al., 2017). These theoretical foundations gives a hint about the necessity of providing a comprehensive theoretical overview on the subject of ELSX.

The topic of ethical leadership and social exchange is attracting the interest of researchers. Unfortunately, because different researchers are offering different conceptual relationship on the subject matter, a comprehensive framework lack. Additionally, there was no consensus on the antecedents and outcomes, which leads to overlooking some determinants and outcomes. This is one of the motives for carrying out this review study. Then, this paper sought to present a comprehensive framework of this rapidly evolving field of study and integrate the ethical leadership field's existing knowledge with the concept of social exchange. The framework could aid leaders in considering the various elements when making sensible judgments in addition to its contribution to future study.

The rationale for doing this review becomes compelling for a variety of reasons. First, ethical leadership has been shown to have a favorable relationship with followers' organizational commitment through perceived organizational support (POS) (Kim and Vandenberghe, 2021). This demonstrates the significance of ELSX since it encourages a sense of support and commitment among followers when leaders act ethically. Second, ethical leadership has been shown to promote OCB by mediating the relationship between pro-social motivation and it. This means that it motivates people of the organisation to act in ways that are advantageous to the organisation (Arshad, Abid, and Torres, 2021). Thirdly, integrating ethical leadership with social exchange theory has been found to improve employees' work engagement and OCB, with work engagement mediating the relationship between ethical leadership and OCB (Bah, Xiongying, and Tena, 2020). This calls for a thorough investigation into the ELSX.

Bibliometric analyses that combine ethical leadership with social exchange are noteworthy because they add to the body of knowledge and theory. Because it is essential to employ bibliometric tools to uncover key issues and to advance the profession. A systematic understanding of the evolution, its landscape, and development of the field is provided by these bibliometric reviews. They can aid in identifying unanswered questions, potential routes for future research, and implications (Zhu et al., 2019). As a result, by fusing ethical leadership with social exchange, this review adds to the body of knowledge by giving readers a thorough

overview of the subject, highlighting important themes and trends, and suggesting areas for further research.

This study provides a broad range of contributions to the research fields. First, this study makes an important contribution by examining how and why ethical leadership in social exchange is more effective in enhancing Ethical behavior, Job satisfaction, Work engagement, Organizational Commitment, Creativity & Performance, Organizational Livelihoods etc., by highlighting the importance of LMX, self-efficacy, and organizational identification. Thus, we provide a more complete picture on how to translate social exchange ethical leader behavior into follower action such as effective employee performance. We hope the present findings will stimulate further investigations into the underlying mechanisms and the conditions under which social exchange ethical leadership relates to various individual and group outcomes, including counterproductive behaviors.

Second, the study reveals a research trend, influential studies, significant terms, and concepts in the field of ELSX. Besides, a scientific mapping was used to organize the integrated framework for further refinement and future research direction by highlighting the gaps and areas left unexplored by earlier research, such as the integration of ELSX with responsible leadership, LMX, and firms' success. The framework demonstrates the antecedents and outcomes of ELSX. Further, it shows the extraneous variables to be empirically tested in the future. By indicating the necessity of this integration, this study therefore advances the subject matter which requires further studies on how the factors will be integrated.

Third, in terms of methodology, this study is one of the first to quantitatively examine a significant amount of data on the subject of ELSX. This aids in bringing up several ELSX-related concepts. The study also gives future researchers a clue to quantitatively examine the effect of certain variables on the subject.

This study tends to investigate performance analysis, scientific mapping and thematic inclination on the subject matter of social exchange ethical leadership Therefore, the study tends to answer the following research questions; 1) What are the main foundational themes in the field of ELSX? 2) Are there antecedents and consequences for the integrated concept of ELSX? 3) How the topics ELSX are trending and thematically advancing? 4) What are the critical areas that require future empirical investigations in the field?

Methodology

Study Setting

The Ethical leadership and Social exchange are among the study areas that have been determined for this procedure's initial stage. Both qualitative and quantitative analysis methods are made. The amount of study on the topic, as well as the number of publications, years of publishing, and disciplines, was evaluated, especially for quantitative analysis. An evaluation of the literature using co-word and text analysis has been done for qualitative analysis. In other words, based on the keyword, title, and abstract analysis, a content- and theme-based analysis was conducted. This is so that bibliometry, the best methodology for determining the state-of-the-art in literature, can be used (Teixeira, 2014). Because it enables us to conduct more unbiased and methodical data collection and analysis studies. The methods created by Teixeira (2014) were generally used in this investigation. The steps in this process involve defining the study area, choosing the databases to use for bibliometric analysis, and choosing the keywords to use.

Sources of Data and Search Strategy

Selecting the most suitable bibliographic database for a bibliometric review is crucial for review researches. Web of Science and Scopus are the two main bibliographic databases. While both databases have similarities in terms of available functions, there are significant differences to consider when choosing between them. One key difference is the number of journals in the field of social sciences and humanities, where Scopus has a better position (Singh et al., 2023). Scopus is also more comprehensive and exhaustive in terms of journal coverage compared to Web of Science (Singh et al., 2023). Given these facts Scopus has been selected as a search database.

All information was gathered from the Scopus using the search phrases (Ethical leader* OR responsible leader* OR moral leader*) AND (Social exchange). Social exchange ethical leadership related keywords have been established in order to get the papers from the chosen databases. These two terms have first undergone a trial. In order to develop effective data search strategy, we have assessed the reporting quality and the ability of the search query to find relevant literature. Accordingly, we have checked the adequacy of keyword selection by including the appropriate synonymous keywords. Thus, the synonymous keywords for ethical leadership such as responsible leadership and moral leadership has been used in connection with social exchange. Next, Boolean operators such as "AND" and "OR" have been applied to effectively refine the search query. This is done in order to create more precise and targeted search queries, which specifies the relationships between search terms and uncover hidden connections and patterns in the literature. In conclusion, the use of Boolean operators enhances

the effectiveness of our search by refining search expressions, increasing control and reproducibility, and improving search query quality.

Inclusion and exclusion criteria

Scopus is a well-known and often used database for the examination of scientific papers and offers extensive publication data. 204 publications in total, were found during the study's publishing period. A total of 184 articles were eventually included in the final analysis after publications that weren't original articles or reviews (n = 18) and those that weren't written in English (n = 2) were eliminated.

Table 1: Search strategy

Refinement strategy	No. of articles excluded	No. of refined articles
Number of articles in the first search	-	204
Publication year (No limit for publication year)	None	204
Field of study (No limit for field of studies)	None	204
All other documents except journal articles has been removed	(18)	186
Articles written in other languages other than English were excluded	(2)	184

The data that are included are taken from the title field, keywords, and title and abstract fields using the search phrases. These articles were exported in CSV (Comma Separated Value), RIS formats, and Microsoft Excel in order to make it suitable for analysis using VOSViewer and biblioshiny R studio.

1.1. Data Analyses

Publications were stratified and assessed according to publication year, country, journal, research area, authors, and organizational affiliations. Keywords were analyzed to identify popular topics in research on ethical leadership and social exchange. VOSviewer v.1.6.18 was used to estimate similarity (affinity) according to association strength. The VOSviewer and biblioshiny R studio method were applied to cluster keywords into different groups, each cluster identified with a different color.

In particular, the analyses were carried out using mixed-research method . Quantitatively, the chosen analyses concentrated on tracing the development of the chosen issues, identifying top publishing journals, identifying the universities with a large number of affiliates, and identifying

the most referenced publications. The qualitative objectives of the study included establishing theoretical underpinnings, locating the subject's most popular discussion points, highlighting the research gap, and recommending potential future research areas. Some key words having universal meanings found in all research publications were not taken into account when doing the analyses. The terms that had the most influence on the study had then been pointed out and rigorously examined. Additionally, the frequency and strength of the correlation between keywords were established and examined. Furthermore, to make the content-based analyses simpler, keywords were clustered. Following the detection of these clusters, a study theme and content were created.

2. Results and analyses of the Study

This section presents two major types of analysis such as performance analyses and scientific mapping.

2.1. Performance Analyses of Ethical Leadership in Social Exchange Research

This study undertakes an analysis of trends in scientific production as well as relevant sources, affiliations, and documents. The annual scientific production shows that there is a dramatic increase in number of publication in the subject matter of ethical leadership and social exchange after 2010.
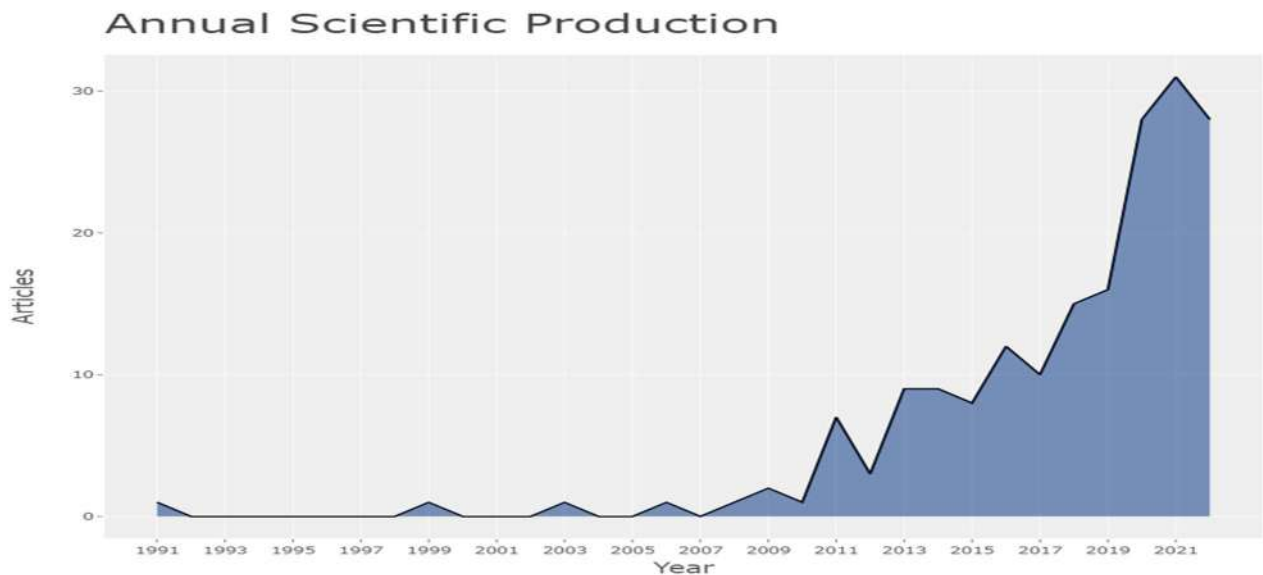

Figure 1: Annual scientific productions in Scopus

The number of publications recently are: 28 in 2022 (only for the first three quarters), 31 in 2021, 28 in 2020, 16 in 2019, and 15 in 2018. This exponential growth of academic literature

indicates the increasing research interest on the subject of ethical leadership in the context of social exchange. Regarding the sources of 184 sample articles, table 2 shows that Journal of Business Ethics is the most relevant sources with 19 documents followed by personnel review (n=11) and frontiers in psychology (n=10). In general, only two journals published more than 10 articles, while only 11 journals published three and above documents. Besides, the top three journals; Journal of Business Ethics, Personnel Review, and Frontiers in Psychology account about 21.74% of the total publications. These journals are also representing the highest H-index.

In terms of affiliation, a total of 414 institutions has been participated in the publication of published in the subject matter of social exchange ethical leadership. Among the 414 institutions, only 10 institutions have published 2 or more documents and only five institutions have published 5 or more articles. The highest number of documents is affiliated with Renmin University of China and Zhejiang University. Table 2 depicted the top 15 articles that received the highest number of citations. That is, analyses were made to highlight the importance of articles in terms of citations. Figure 4 shows that Tierney P. (1999) is highly cited paper, followed by Mayer DM (2009) and Walumbwa FO. (2011). the data shows that only these three articles were received more than 250 citations from papers indexed in Scopus. These three articles in common account about 34.74% of total citations.

Table 2: Most relevant sources, affiliations, and documents

Most relevant sources		Most relevant affiliations		Most relevant Documents	
Sources	**Art.**	**Affiliations**	**Doc.**	**Documents**	**Cit.**
Journal of Business Ethics	19	Renmin University of China	7	Tierney, Farmer, & Graen, 1999	1006
Personnel Review	11	Zhejiang University	7	Mayer et al., 2009	906
Frontiers In Psychology	10	University of South Africa	6	Walumbwa et al., 2011	443
Leadership & Organ. Dev. Journal	7	Arizona State University	5	Bedi, Alpaslan, & Green, 2016	243
Ethics & Behavior	5	Monash University	5	Chamberlin, Newton, & Lepine, 2017	216
Journal Of Applied Psychology	5	National Chiao Tung University	4	Kacmar et al., 2011	196
European J. of Work & Org. Psychology	4	National College of Business Administration & Economics	4	Lord et al., 2017	168
Intern. J. of Environ. Res. & Public Health	4	Sichuan University	4	Kalshoven et al., 2011	153
J. of Managerial Psychology	4	University of Amsterdam	4	Dhar R.L., 2016	149
Sustainability (Switzerland)	4	University of Hong Kong	4	Yukl et al., 2013	137
Personnel Psychology	3	Beijing Normal University	3	Miao et al., 2013	136
Asian Journal of Business Ethics	2	Comsats University Islamabad	3	Mahsud, Prussia, & Yukl, 2010	128
Central European J. of Public Health	2	Curtin University	3	Hassan et al., 2013	110
Current Psychology	2	Deakin University	3	Newman et al., 2014	108
Intern. J. of Hospitality Manag.	2	Durham University	3	Lee et al., 2020	106

The most cited article by Tierney P studies about the role of leadership to employee creativity focusing on the relevance of traits and relationships. The study revealed that employee intrinsic motivation and cognitive style, and LMX are related to employee creative performance. The second most cited article by Mayer DM studied about "the relationships between top management and supervisory ethical leadership and group-level outcomes such as deviance and OCB." It also suggests that ethical leadership flows from one organizational level to the next. The other most cited study by Walumbwa FO examines

about "linking ethical leadership to employee performance: The roles of leader-member exchange, self-efficacy, and organizational identification". This indicates that there is a need to relate the study of social exchange ethical leadership with factors such as LMX, psychological factors (both individual and organizational), creativity and performance.

2.2. Scientific Mapping

2.2.1. Three fields plot of authors, affiliations, and countries

Figure 2 presents the three-field plot that shows the most productive authors, institutions, and countries. It presents articles contribution by institutions, authors and countries.
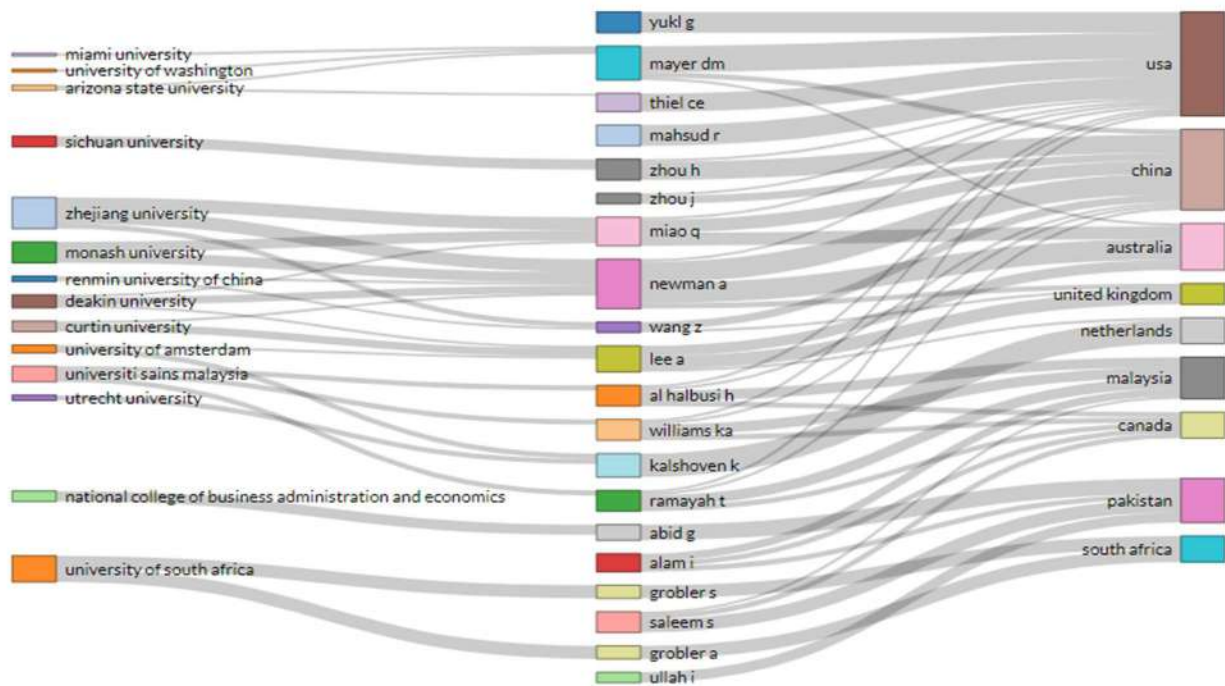

Figure 2: Three fields plot: authors, affiliations, and countries

In figure 2, the column in the left side represents active institutions engaged in publications of the paper in the subject matter. The middle one presents active authors while the one in the right side shows the most producing countries. The height of the box in the right shows that USA has the highest number of publishing authors followed by China, Australia and Pakistan. Reading the thickness of the line, Mayer, Yukl, thiel, and Mahsud are the giant contributors from USA and while Newman is the giant publisher affiliated with Zhejiang University of China and Monash University of Australia. University of South Africa is among the institutions that published many documents by authors such as Grobler S. and Grobler A. The thickness of line that links the

affiliated institution with the authors revealed that Newman and Miao are among the top author authors from Zhejiang University and Monash University. Also, Abid from National College of Business Administration and Economics, Gobler S and Gobler A from University of South Africa, Zhou H from Sichuan University are among the top publishers.

2.2.2. Keywords co-occurrence

Primarily, a minimum no. of occurrences of keywords is set to 5 and 6 clusters were identified. Later, a minimum no. of occurrences of keywords is set to 3, with a min. cluster size of 10, which leads to 4 clusters. Of the 504 keywords, 48 meet threshold, with 228 links and a total link strength of 382. In a keyword co-occurrence analysis, the number of times a word occurred in the selected documents has been analyzed.
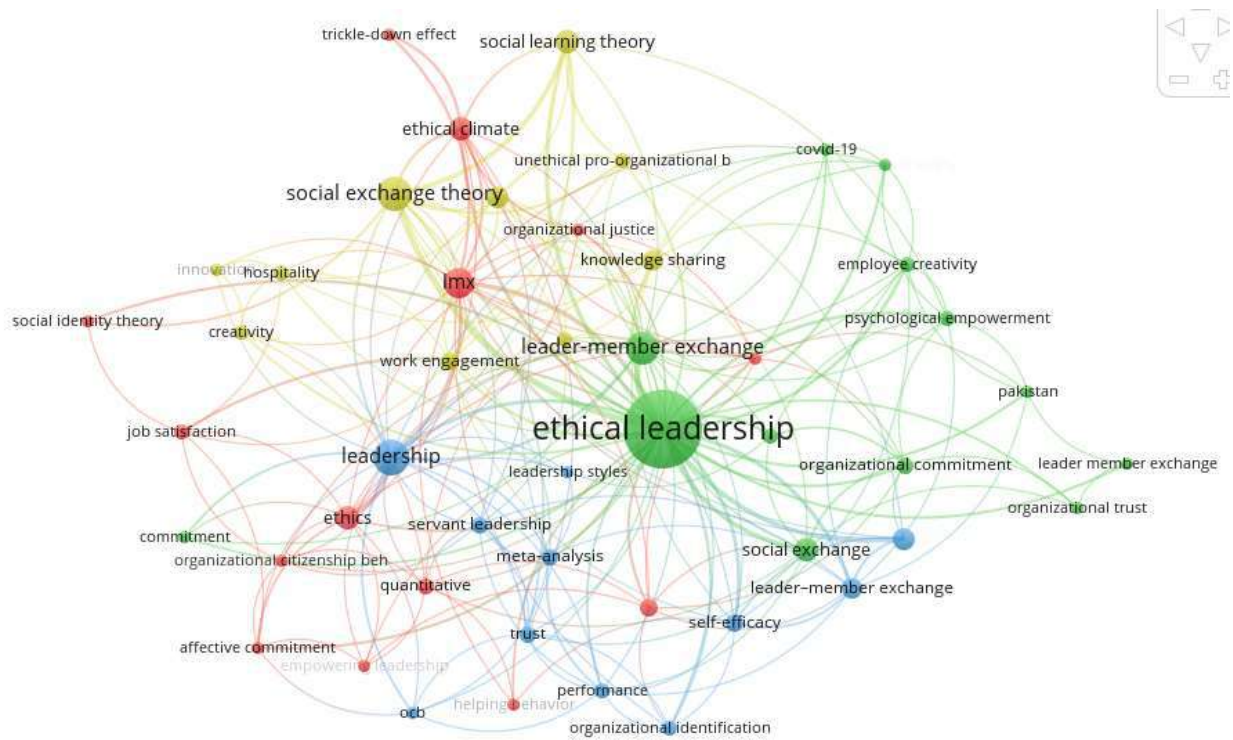
Figure 3: Keyword co-occurrence analysis

Keyword analysis is undertaken in order to get new insights on the distribution of keywords and signify state of the art in the subject of ELSX. In general, figure 3 shows 48 most frequently used keywords grouped in 4 clusters. The four main keywords are ethical leadership, LMX, leadership, and social exchange theory. Among the four clusters, the one with green color and labeled with a word "ethical leadership" which appeared 103 times. The least researched group is the one colored with yellow and labeled as "social exchange theory" which appeared 20 times.

Although reviews of the literature have highlighted trust in leader as a social exchange mechanism linking ethical leadership to desired follower behaviours (Brown and Trevino 2006), it has not been a topic of prior empirical investigation. Shore et al. (2006) argued that social exchange generates trust, provides broad investment, emphasizes socio-emotional input, and focuses on long-term orientation, which distinguish it from economic exchange (Wang et al., 2020). As an integration, Wang et al., (2020) anticipate that ethical leadership influences subordinate taking charge indirectly via social exchange. Specifically, Lee (2016) has suggested that ethical leadership could promote taking charge, but this study lacked empirical evidence that can support this conclusion in the business workplace. Thus, it's necessary to study the ethical leadership from the context of social exchange.

3. Discussions and future research implications

The finding of this study showed that LMX is a specialized theme in social exchange ethical leadership, but has marginal importance. Responsible leadership is an emerging theme, ethical leadership is a fundamental and important theme, and leadership is a well-developed, underlying and driving theme. Thus, future researchers should focus on emerging topic responsible leadership in connection with social exchange ethical leadership.

Ethical leadership researchers have frequently used social learning theory (Bandura 1977) to explain the impact of ethical leadership on important outcomes. A social learning perspective suggests that subordinates follow strong ethical leaders because they consider them to be credible role models worthy of emulation. However, alternative explanations of ethical leadership influence, such as social exchange theory, have also been proposed (Brown and Trevin˜o 2006; Mayer et al. 2009). Social exchange exists widely between subordinates and different groups, such as among employees and organizations that employ them, colleagues, and their direct leaders (Wang et al., 2020). Previous studies didn't much focused on the integrated concept of ethical leadership and social exchange. However, it has a crucial relevance, if the two concepts are presented concurrently, because trust in leader is a social exchange mechanism that links ethical leadership to desired follower behaviours, but it has not been studied empirically. Therefore, future researchers are advised to integrate both concepts and empirically test their antecedents and outcomes.

The Keyword analysis shows that there four main clusters namely, ethical leadership, LMX, leadership, and social exchange theory. Previous studies proposed that, ethical leadership interacts with coworker ethicality to predict personnel's ethical intentions and OCB. However, the extent to which the integrated concept ELSX affects ethical intentions and OCB were not well covered, we require, to be explored more by the future researches. Based on the results the following themes were identified.

Theme 1: LMX towards ethical climate and job satisfaction

Leader-member exchange (LMX) as a part of social exchange, plays a great role in establishing ethical climate, which further enhances the job satisfaction. Walumbwa et al. (2011) is extended towards examining the role of LMX as a social exchange process in the ethical leadership–performance relationship. These alternative explanations have been rarely tested empirically (Hansen et al., 2013), which requires to be tested. Further there is a need to clarify how the interaction between leaders and co-workers enhance the ethical behavior and job satisfaction.

As an independent variables, ethical leadership is a crucial factor to foster social exchange (Garba et al., 2018; Wang et al., 2020). However, this study recommends the integration of the two concepts to form a new construct, social exchange ethical leadership. Besides, this LMX is also expected to moderate the effect of a new construct ELSX on job satisfaction and building ethical climate within the organizations. A good LMX relationship serves as a channel for leaders to distribute organizational resources, task-related benefits, and psychological support to followers (Gu et al., 2015). This is because, the positive psychological contract among leaders and subordinates may improve the practice of ELSX that may enhance employee's job satisfaction and ethical climate. However, it's unsure whether LMX contributes or not.

Garba et al., (2018) acknowledge research showing that ethical leaders can motivate customer-oriented behaviors by increasing job satisfaction (Qin et al., 2014). Also, ethical leadership has been found to influence several employee's behaviors and attitudes, such as higher psychological safety (Walumbwa and Schaubroeck 2009), job satisfaction (Pastoriza & Ariño, 2013). However, the integration of ethical leadership with social exchange may give different results, which may require further investigation and clarifications.

Theme 2: Ethical leadership for social exchange (ELSX) towards enhancing organizational livelihood and LMX

ELSX is expected to enhance the extent of organizational support (including organizational commitment, perceived organizational support, and psychological empowerment) and LMX. Ethical leadership has been found to influence several employee's behaviors and attitudes, such as willingness to give extra effort, organizational commitment (Pastoriza & Ariño, 2013), and psychological empowerment (Gu et al., 2015). Even though previous studies has been confirmed the influence of ethical leadership, there is a need to clarify the effect of ELSX on organizational livelihood. Besides, there is a need to clarify the role of LMX on the relationship. Previous literature discussed that it was assumed that LMX would influence POS (Nazir et al., 2018). Conversely, Wayne et al., (2002) proposed that when employees feel that they have extensive POS, they will probably look for good quality exchange relationships with their immediate supervisors. Thus, there is a need to clarify the relationship. Further, LMX as an extraneous

variable has to be tested in the future. In particular, Hansen et al., (2013), find that ethical leadership and different types of social exchange relationships are positively related to employee commitment.

Theme 3: Ethical Leadership behaviors and performance

Organizational ethical leadership behaviors such as OCB, trust, organizational identification, servant leadership, self-efficacy, and LMX are expected to enhance performance. On the other hand, ELSX are expected to enhance the leadership behaviors. For instance, ethical leadership has expected to have a significant impact on promoting enhancement of employee attitudes and behaviors and also increases task significance, which, in turn, results in improved performance (Walumbwa et al., 2011). This indicates that ethical leadership is playing a role in enhancing employee's performance. However, there is a need to understand how and why ethical leadership affects performance. In this regard, Walumbwa et al., (2011) argue that the reason why ethical leadership predicts performance is that ethical leadership behavior enhances high-quality LMX, and identification with the organization. In turn, high-quality LMX, self-efficacy, and organizational identification improve employee performance. This shows ethical leadership enhances performance through improving leadership behaviors.

Scholars have shown that ethical leadership has a positive influence on a lot of subordinate outcomes, such as OCB and job performance (Mo and Shi, 2016). This shows that ethical leadership in the context of social exchange is improving the leadership behaviors such as OCB and trust which enhances performance. Research has also shown positive associations between individual psychological empowerment, innovative behavior and organizational performance (Hu et al., 2018). On the other hand, ethical leadership is positively related to both employee identification with leader and LMX. Therefore, the combination of ethical leadership and social exchange, which we call social exchange ethical leadership, is important in building trust as one of the leadership behavior which further enhances performance. This is because, when ethical leadership and positive social exchange is existed within an organization, it builds respect, kindness and trust among employees. This is expected to enhance the organizational performance.

Theme 4: The role of social exchange theory and social learning theory in the linkage between ELSX behaviors and employees work engagement and creativity

Theories such as social exchange theory and social learning theory have discusses about the relevance of social exchange and ethical leadership behavior. Most researchers have explained the influence of ethical leadership on the consequential outcomes as a process of social exchange or social learning (Brown & Treviño, 2006). Specifically, the fair and balanced decision making of ethical leaders shapes followers' perception of a social exchange relationship (Brown &

Treviño, 2006; Mayer et al., 2009), resulting in the followers reciprocating this behavior (Ma et al., 2013). This behaviors in return is expected to enhance performance. Drawing from social learning theory and social exchange theory, research has found that ethical leadership can promote followers' creativity through reinforcement process and role modeling during daily interactions (Gu et al., 2015). Thus, there is a need to study the role of new construct, ELSX on the creativity.

Previous theories are explaining the role of ethical leadership and social exchange from different perspectives in building leadership behavior. Although social learning theory (Bandura 1977) has been forwarded to explain the mitigating effects of ethical leadership on follower deviant or unethical behaviors, social exchange theory has typically been used to explain why ethical leadership has a positive influence on desired follower behaviors (Walumbwa et al. 2011). That is, employees will follow the supervisor's deviant behavior if a supervisor shows unethical behavior.

Drawing on social learning theory and social exchange theory, most studies exploring the psychological mechanisms linking ethical leadership to extra-role outcomes (Brown and Trevin˜o 2006; Mayer et al., 2009), neglecting the relevant cognitive processes (Tu & Lu, 2016). Social exchange theory argues that when followers receive favorable treatment from their ethical leaders, such as respect, genuine concern and fairness, they will reciprocate by engaging in extra-role performance (Tu & Lu, 2016). Therefore, social exchange theory and social learning theory can be used as a foundation for the study of the relationship between ELSX behaviors on one side and work engagement, creativity, and performance on the other side.

Based on the theoretical foundations given in the above four themes the following comprehensive framework is built regarding the outcomes and consequences of the ELSX. That is, ELSX builds on social exchange theory and social learning theory, enhances ethical behavior which leads to job satisfaction, work engagement, creativity and performance. ELSX further ensures the organizational livelihoods and long term survival.
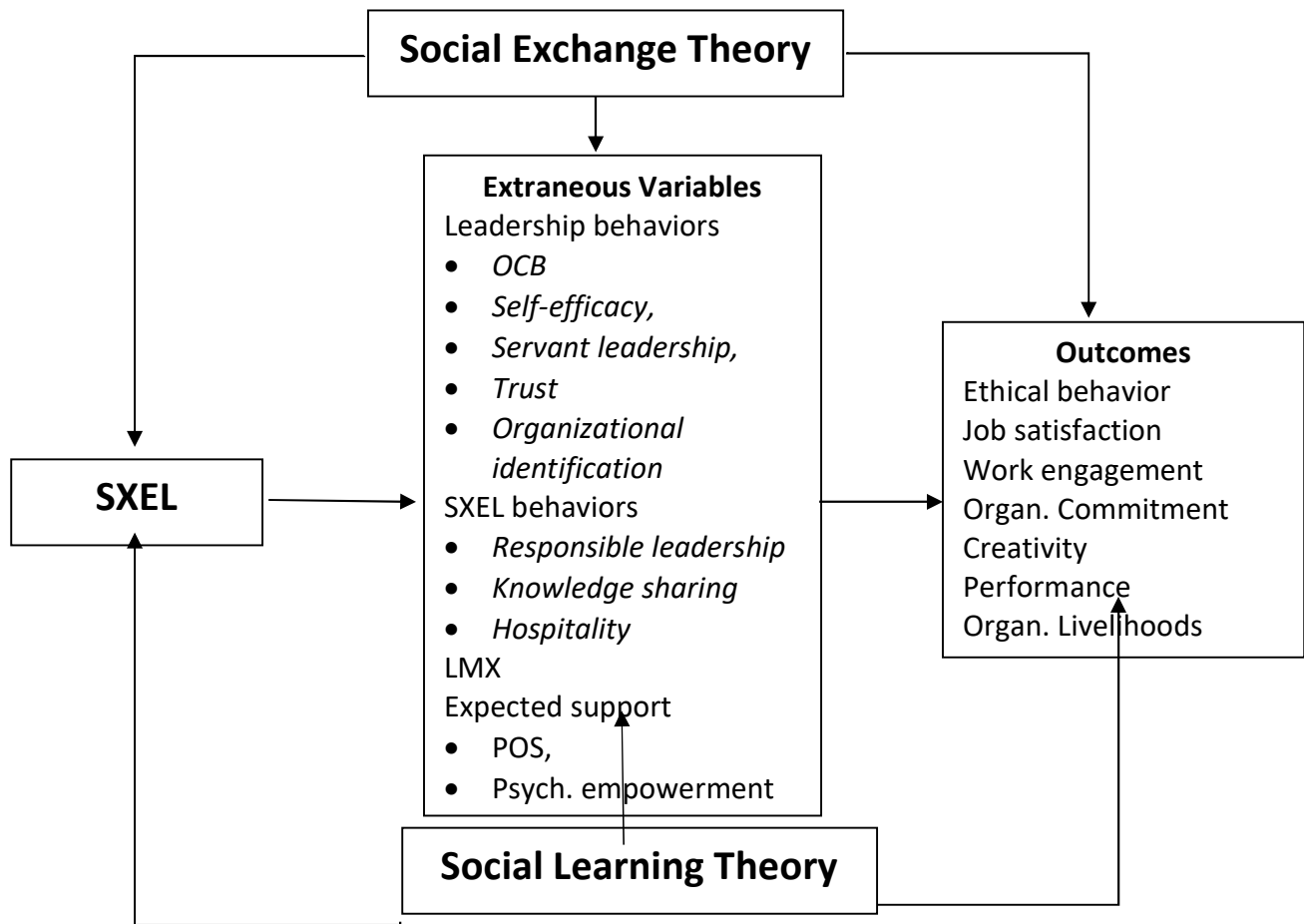
Figure 4: A framework for consequences of ELSX

Given the relationship between ELSX and its consequences, there is also a necessity to test the extraneous variables as a moderator and mediator. These variables includes leadership behaviors in the form of OCB, self-efficacy, servant leadership, trust, and organizational identification. Besides, ELSX behaviors which occur from the integration of ethical leadership and social exchange will be expected to play a mediating role. Furthermore, LMX are expected to be tested both as a moderator and mediator by the future researchers.

4. Conclusions and practical implications

The performance analyses and scientific mapping of ethical leadership in social exchange were the primary focuses of this study. The findings indicated that social exchange theory, LMX, leadership, and ethical leadership were the four primary clusters. When exercising ELSX, practitioners must take these factors into account. This highlights the importance of ELSX since when leaders behave morally, followers are inspired to support and commit to them.

Additionally, it gives practitioners a clearer view of how to convert ELSX behavior into follower actions like productive staff performance.

According to the study's findings, moral leadership influences the attitudes and actions of employees while encouraging customer-oriented behavior. Research indicates a strong connection between charismatic and/or transformational leadership and ethical leadership. Moreover, the research framework demonstrates that ELSX improves moral behavior, which results in improved performance, engagement at work, creativity, and job satisfaction. However, it is anticipated that practicing ELSX will be impacted by leadership behaviors, self-efficacy, servant leadership, trust, and organizational identification. This paradigm could contribute to future research as well as help leaders weigh the numerous factors while making informed decisions.

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Patterns of Children's Out–of–School Experiences in Addis Ababa: Implications for Academic Achievement

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Abstract

Children's out-of-school experiences are important for shaping their behavior. It is worthy to navigate daily activities and experiences of children when they get back to home. The main purpose of this study was to examine patterns of children's out–of–school experiences (COSEs) in Addis Ababa. Out-of-school experiences refer to practices and activities that children do outside the school setting. In this research, convergent parallel mixed methods design (QUAN+QUAL) was employed. Simple random sampling technique was used for selecting 460 children participants from primary schools to fill out the questionnaire. Likert-type three point scale questionnaire (to measure out-of-school experiences, and academic achievement), interview, and observation checklist were the tools used for the study. Purposive sampling was implemented for recruiting interview participants, and for selecting settings for observation. Parents were part of the interview. SPSS 25 was executed for the analyses of quantitative data. Case-by-case thematic analyses were employed for analyzing the qualitative part. By and large children in their out-of-school time played, did homework, attended tutorial, and spiritual worship. Great deals of number of children passed much time on screen, such as watching TV, and playing mobile games on smart phones. This engagement on screen made children have limited time for academic performance. Generally, the result indicated that out-of-school experiences had influences on academic achievement of children. It is recommended that there should be close follow up of COSEs. These experiences had eminent impact on behavioral outcomes; hence, emphasis should be given on the nature of engagements in their out of school time.

Key Words: **Out-of-School Experience, Playing, Working, Gaming, Positive Engagement, Positive Engagement, Academic Achievement**

Introduction

Background of the Study

Child behavioral outcomes are influenced by a child's experiences in general and by out-of-school experiences (OSEs) in particular. Children's experiences outside of school are varied. They might engage with their parents, friends, and neighbors while they work, play, complete homework, and study. Behavioral outcomes are determined by their interactions with context and daily practices (exposures) (e.g. Ingoldsby & Shaw, 2002; Rogoff, 2003). The outside school experiences have constructive or destructive behavioral consequences as per the useful or harmful feature of the setting and engagement (Parke & Buriel, 2008; Rogoff, 2003; Zimba, 2011; Ingoldsby, & Shaw, 2002; Anderson-Butcher, Amorose, Lower, Riley, Gibson, &Ruch, 2014). It presents evidence from working children's lives and perspectives in cases of East Africa spanning a variety of types of children's work, from agriculture to mining to petty trade, paid and unpaid work, inside and outside household contexts (Pankhurst, Bourdillon, & Crivello, 2015).

Contexts are seen as locations of different experience platforms that include children and have an impact on behavioral outcomes during the OSEs. These also value culture and social engagement. For example, a child is at the centre of a pattern of rings of context in the environment that is thought of as an overall system, according to Bronfenbrenner (1994). Individual variances exist in the kind and intensity of experiences in such settings.

According to earlier studies, including Smyke and colleagues (2007), school-age children's experiences in their everyday environment are related to behavioral outcomes like social competence and self-regulation. A child's learning and academic achievement are influenced by his or her experiences in the environment (Fauth, Roth, & Brooks-Gunn, 2007; Ingoldsby & Shaw, 2002). The child's living and playing environments shape their conduct. Children connect with peers, families, and the community in the out-of-school setting (Ingoldsby et al., 2012). The mark or type of living environment matters for the child's exposure upon which experiences occur in the association and determination of conduct.

Parents these days are leaving their busy days early to work and returning home late. As a result, they now spend less time with their kids and monitor them less closely to check on their exposures outside of school. This suggests that parents and guardians should use caution during unsupervised hours. Even though earlier researchers have all agreed that early experiences are crucial for learning and development, little is known or has been studied about the effects of COSEs in Addis Ababa. There has not been any thorough scientific research done in this field yet, particularly including school-age children. Here, it is noteworthy that the informal (less formal), dynamic, and fluid nature of the out-of-school context (Ingoldsby, Shelleby, Lane, &

Shaw, 2012; Smyke et al., 2007) may make the he COSEs to be susceptible to maladaptive and negative exposure in influencing children's academic achievement. Therefore, it is worthy to navigate the setting of outside school experiences and pertinent behavioural outcomes.

Statement of the Problem

For positive and adaptive behavioral outcomes, out-of-school experiences and surroundings wherein children live, play and/or work, are supposed to be encouraging, sustaining and promoting the emotional, social, and intellectual development of children. The aforementioned positive anticipations are supposed to bring about constructive learning and development of children. However, different researchers (such as Fauth, Roth, & Brooks-Gunn, 2007; Ingoldsby et al., 2006; Leventhal & Brooks-Gunn, 2003; Luthar, 2003; Morales & Guerra, 2006) have indicated that the complex attribute of COSEs in contextual domains (in interaction with family, and community) create difficulty in bringing about desirable change.

According to Parke and Buriel (2008) child experiences with family; media, and peers are imperative in determining behavioral outcomes. The experiences in context have cumulative impact on behavior and academic performance. In areas where they interact, children are active and interactive constructors (e.g. Lindon, 2012) of their experiences. However, the pattern and nature of experiences are supposed to be uncovered.

Child OSEs and interactions follow patterns such as child-to-child, child-technology (TV, computer, mobile), child-family contact, and community (such as peer interaction, neighborhood involvement in child supervision and follow-up). These characteristics include sensitivity and responsiveness to the child's needs and signals, positive affection, frequent verbal and social connection, and cognitive stimulation via diverse techniques such as play (Atkins-Burnett et al., 2015; Carl, 2007). Setting is vital in the relationship between family and child because it creates an environment of on-going positive child engagement. According to Atkins-Burnett and colleagues, a quality context tries to balance children's positive involvement with family, as well as community assistance and direction. The type and level of play also matters.

According to studies (e.g., Gilbert, 2013; Ingoldsby et al. 2012; Chung, 2000), unsupervised or less monitored out-of-school practices, such as unplanned television watching or computer game play, are less valuable than supervised and monitored behaviors. On the other hand, Chung emphasized the benefits of after-school programs, stating that planned and regulated assistance for children in various ways, such as staying safe and out of trouble, can help enhance academic achievement, self-confidence, and social skills. Nonetheless, the situation is different in nations like Ethiopia, where there are no formal after-school programs. The aforementioned studies focused on after-school programs rather than unmonitored children's OSEs. As a result, it is

critical to investigate what children do and how they spend their free time outside of school in Ethiopia.

In COSEs, children's adaptive and positive experiences are crucial to their nurturing, particularly when it comes to guiding and acculturating them to produce positive CBOs like improved self-regulation and high social competence (Ingoldsby et al., 2012; Carl, 2007). As mentioned above, there is a protective mechanism against danger in the out-of-school environments for school-age children when their families actively participate. Furthermore, enabling and permitting kids to help with domestic chores including cleaning bedrooms, tidying the yard, tending to younger siblings, doing the dishes, and other similar tasks can help cultivate responsibility in kids at home (Zimba, 2011). Children's chores should be beneficial to their learning and growth, according to Zimba. Nevertheless, Zimba did not indicate the magnitude of experiences in home chores.

The earlier cited research works discussed OSEs despite the fact that they primarily focused on institution-based especially the after-school care related practices. In addition, the socio-cultural and socio-economic backgrounds treated in most previous studies were different from the setting that this study targets. Hence, this research investigated the OSE related issues and academic achievement of children in Addis Ababa.
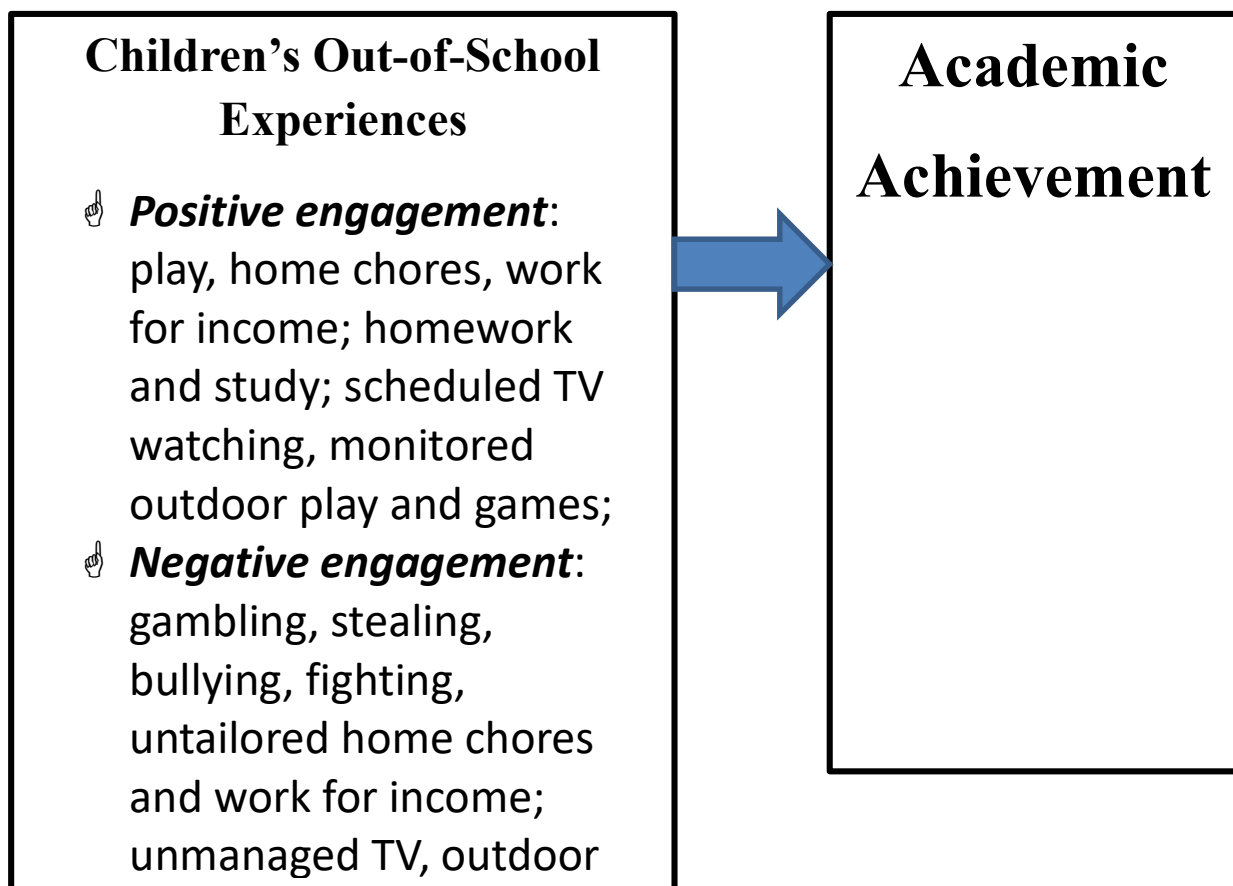
Theoretical Justification

The theoretical foundation of this study is Bronfenbrenner's Ecological Systems Theory which was incorporated as the base of the study. Ecological systems theory conceptualizes the links between the home/out-of-school environment and change. According to this theoretical framework, the child is in the middle of the system, surrounded by his or her family and encompassed by the school, school policies, community, culture, and other factors. From the layers of ecological systems, microsystem is more influential to the child as it includes the factors that the child is exposed to, whether at home or at school. The microsystem layer represents the surroundings in which the child lives, plays, and moves.

Conceptual Framework

The conceptual framework of this study was prepared by the researcher to indicate the conceptual relationship among variables under investigation.

Figure 1: Conceptual framework

Children's Out-of-School Experiences	Academic Achievement
☞ **Positive engagement**: play, home chores, work for income; homework and study; scheduled TV watching, monitored outdoor play and games; ☞ **Negative engagement**: gambling, stealing, bullying, fighting, untailored home chores and work for income; unmanaged TV, outdoor	

As it is portrayed in the framework, which is prepared based on theoretical and empirical reviews,, the study mainly investigated the correlation, influences and/or contributions of the independent variable (COSEs categorized as positive engagements and negative engagements) on dependent variable that is academic achievement.

Research Questions

The research questions of the study are as follows.

a. What were the outstanding activities of out-of-school experiences of children in Addis Ababa?

b. How did children pass time in their outside school hours?

c. How was academic achievement influenced by out-of-school experiences?

d. Were there experiences between out-of-school experiences and academic achievement?

Methods of the Study

This part espoused the research design, population of the study and sample, sampling procedure, data collection instruments, data gathering procedure, and data analyses.

Study Design

The study followed convergent parallel mixed methods design. This helps to triangulate the findings and overcome the weakness of each form of data (Creswell, 2015). Mixed approach is preferred because in the methodological review of articles in this study, there were gaps in use of mixed method in the thematic area carried out (Creswell, 2015; Greene, 2007; Tashakkori & Teddlie, 2010).
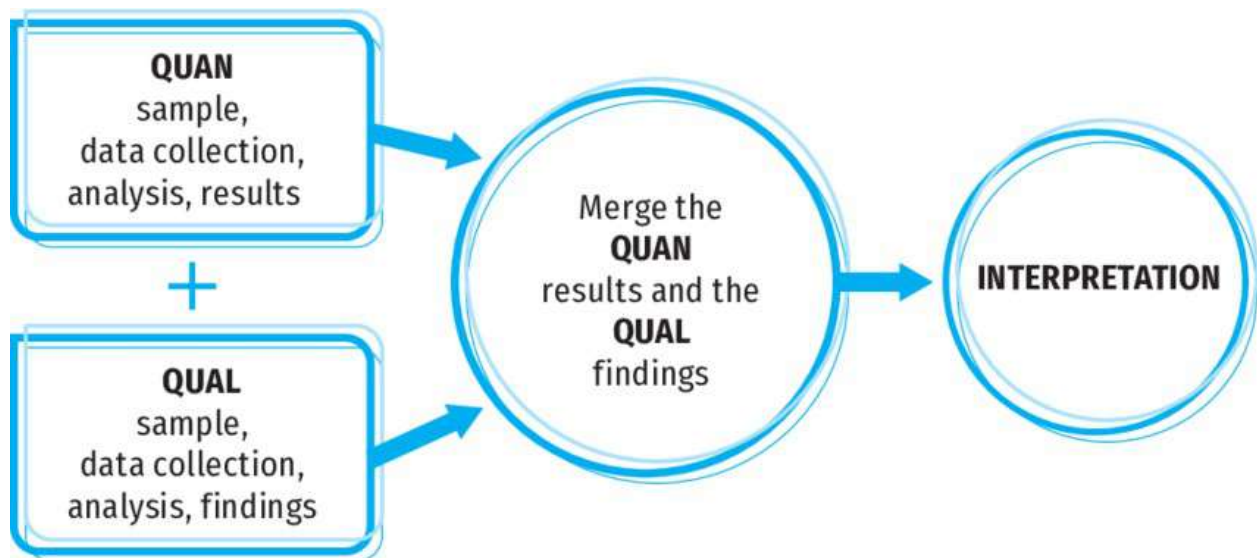
Locale and Participants

The setting of this study was in Addis Ababa . The study population encompassed parents and school age children who lived   in Addis Ababa. The sample is recruited from schools (primary school-grades 4-6) located in 11 sub-cities.

Samples and Sampling Techniques

Sampling Procedure

The participants were selected through a multistage sampling technique that involves cascading from city to sub-city and finally to the woreda where schools were situated. Subsequently, participants were chosen through simple random sampling from schools. Using a random sample table, a straightforward random sampling technique was applied to each member. The process entailed obtaining student lists for a particular class from the school, counting the number of students in that class and selecting participants by using lottery system until the necessary sample size reached. Purposive sampling was utilized by the researcher to choose participants for the observation and interview settings.

Sample size

To determine the sample size, the investigator used Yamane's formula shown below.

$n = \frac{N}{1+N(e)^2}$Where   n = is the sample size, N = is the population size, and e = is the level of precision (0.05).

Table 1: Population (in focus) of the study

Sex	Ni
Male	258,563
Female	306,159
Total (N)	564,722

Source: *Federal Democratic Republic of Ethiopia - Ministry of Education (2018)*

Then, the sample size for the main study was determined to be 460.

The participants were selected from 11 sub-cities. 460 children were participants   to fill out the three point scale questionnaire prepared for each group. The number of parents and children in the sample size were determined proportionally from the sub-cities.

Data Gathering Tools and Data Collection Procedures

The data were gathered through questionnaire, interview, and observation checklist.

Measuring Instrument and Construction

A. Questionnaire

Questionnaires were constructed by adapting and modifying items from various sources/literatures. The adaptation contained demographic characteristics, and Likert-type rating scale on child OSEs (positive and negative engagements).

B. Interview Guide

Semi-structured interview guide was prepared with questions that mainly emerged from the research questions. The interview questions on the theme of children's-outside-school experiences were asked for parent respondents to know the contributions of COSEs for CBOs.

C. Observation Checklist

Checklist was used for the purpose of assessing outdoor experiences of children in their outside school time. This systematic observation was mainly conducted in residential areas, and playgrounds. This was done after the consent of parents who were available during data gathering process. Detailed observations of neighborhood surrounding were conducted in the child's residence and the child's out-of-school based on the checklist adopted from Kohen et al. (2002)..

Validation of Tools

The researcher compiled and adapted the tools based on review of other instruments which are related to the variables under study. Item construction was accompanied by forward and backward translation upon each synthesis and evaluation was done. The questionnaire was made to pass through expert inspection. The reliability of the total items in the instrument was Cronbach Alpha 0.84, which is good.

Administration

Questionnaires were administered by trained assistant data collectors. Eight parents were interviewed. In addition, there was observation of playing areas of children to see the out-of-school settings in the context and residence areas.

Data Analysis Methods

After collection of data, the researcher did the task of coding, entry, and analyzing them. After coding and tabulation, data were encoded to excel. Finally, quantitative data were analyzed using SPSS version 25 in line with the variables. Furthermore, the data from the observations, and interview were analyzed qualitatively using case-by-case thematic analysis following repeated reading of the note and listening oral responses that were found from fieldwork in data collection. The analyses of 452 questionnaires are presented in this report.

Ethical Considerations

The investigator secured informed consent from parents and assent from children. Meanwhile, with respect to privacy, confidentiality, and anonymity of the data, were all of them were found in the questionnaire and practically confirmed. The assistants also respect ed ethical matters of the data collection. Sources were properly acknowledged and credit was given. Above all, the researcher was obedient and genuine in implementing the scientific procedure of conducting the study.

3. Data Analysis, Finding and Results

This part of the analyses brings: response rate, child engagement during COSEs (incorporating sub-categories, such as home chores, work for income, homework/study, watching TV/movie, computer/mobile games, outdoor play, gambling, and stealing), and CBOs/academic achievement. Finally, statistical analyses are presented for displaying relationship between determinants and outcome variable.

Response Rate: The child participants filled out and returned 452 questionnaires out of 460. This means 8% of the questionnaires were in the non-response due to failure to return or defective to enter in to the analyses.

Participants' Demographic Characteristics

Demographic characteristics espoused age of child respondents, gender, grade level, number of siblings, and family size. This is to give information about the respondents.

Table 2: Participants' Demographic Characteristics

| SR	Variable	Category	f	%
1	Age	Below 10 years old	36	8.0
		10-11 years old	208	46.0
		12-13 years old	152	33.6
		14-15 years old	56	12.4
		Total	452	100.0
2	Gender	Male	211	46.7
		Female	241	53.3
		Total	452	100.0
3	Grade	Grade 4-5	134	29.6
		Grades 6-7	279	61.8
		Grade 8	39	8.6
		Total	452	100.0
4	Number of siblings	None	88	19.5
		1-3	157	34.7
		3-5	85	18.8
		Greater than 5	122	27.0
		Total	452	100.0
5	Number of family members	Below 4	121	26.8
		4-6	189	41.8
		6-8	123	27.2
		Above 8	19	4.2
		Total	452	100.0

In this study, most of the child participants (46.0%) were in the age range from ten to eleven years old. As far as gender, it was relatively proportional though numbers of female participants (53.3%) which were greater in number compared to boys (46.7%). Majority of the participants had siblings.

Child Out-of-School Experiences

This analysis section presents the responses on COSEs. The analysis encompasses issues about children's engagement and activities that they do in their outside school time. Responses from interview and observation are related to the theme and integrated into the analyses with descriptive, frequencies, percentages, mean and standard deviation.

Sixty one (6.9%) of the participant children worked to get money. Though 114 participants (25.2%) indicated they did not have time to play or studied since they wereengaged in home chores, greater number i.e. 328 (72.6%) were not sure (*M = 2.23: SD =0.47*). 326 (72.1%) of

participants agreed that they spent much time through studying and doing homework (*M = 2.67: SD =0.57*). 315 (69.7%) of children participants watched TV as much time they wanted. 288 (63.7%) of participants insisted on playing mobile games all the time. This indicates that there was high tendency of playing mobile games (*M = 2.53: SD =0.68)*. Here it is possible to infer that children passed much time on screen (such as TV and mobile gaming).Graph 1: Survey result of out-of-school experiences of children
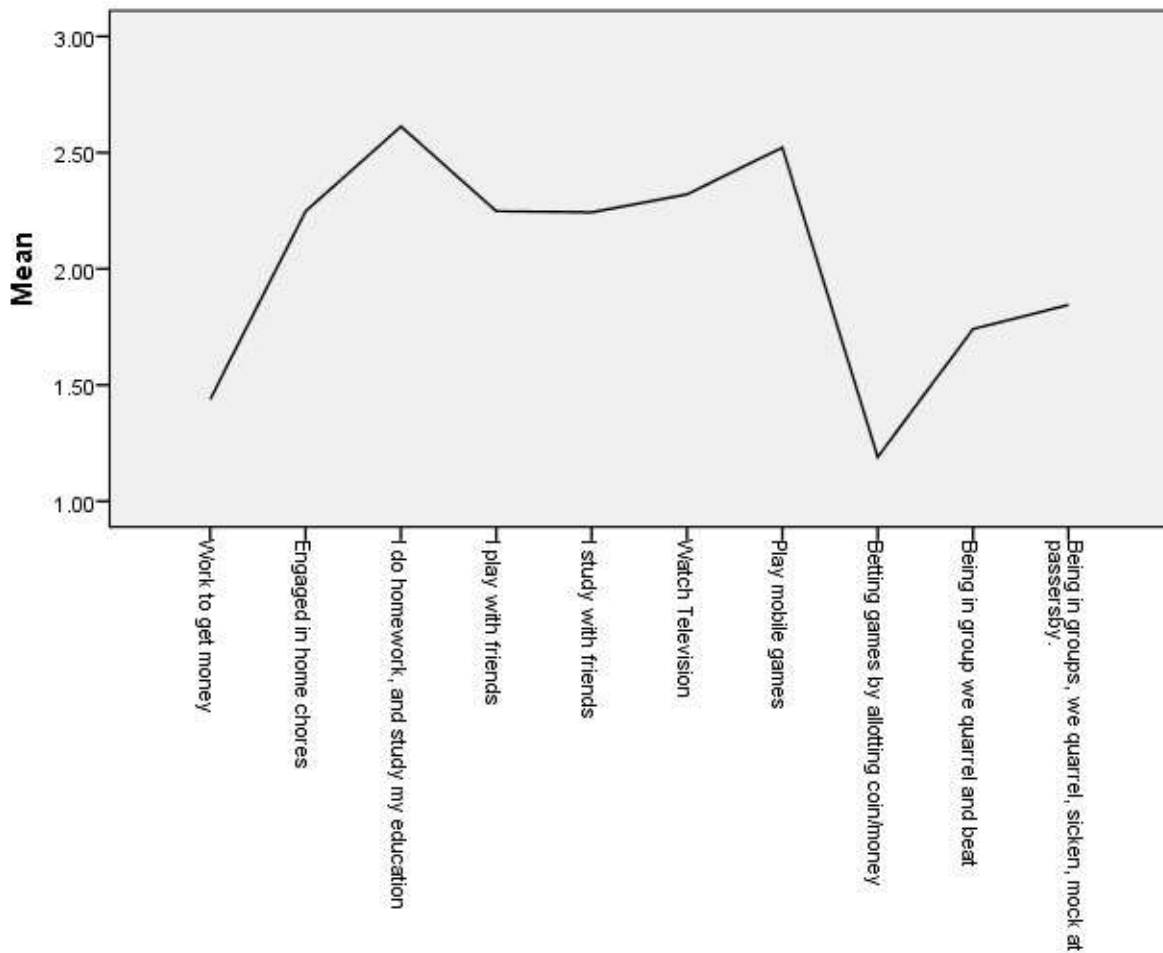
*1=Disagree, 2=Uncertain, 3=Agree

The above graph depicts that most children passed much time by doing homework, study, play mobile games, watch TV, support the family in home chores, and play outside home. A few children worked to get money, and did team work with their friends.

20 (14.5%) indicated they did not have time to play or study since they were engaged in home chores, greater, i.e. 22 (15.9%) disagreed (*M*= 1.99*; SD=0*.55), but the remaining were uncertain. 73.9% of the respondents agreed that they spent much time through studying and doing homework (*M= 2.73; SD=0.46*). 64.5% of the children respondents watched TV as much time they wanted and watched for more than two hours per day. 79% of the respondents insisted on playing mobile games all the time. This indicates that there was high tendency of playing mobile games.

Home chores: From different types of COSEs, home chores were one of the activities that children often did. According to the parents and child participants, home chores were on the most important parts of COSEs. A mother of 8 years old girl said,

"*My child is so humble. When we work at home, she follows and carries on message. As to her ability, she takes part in home chores. The main thing is the interest that she has….*"

Home chores and supportive practices were good experiences at home as indicated by parent respondents. For instance, a child had to be instructed to wash his sibling's legs, feeding, and exercising care for family members.

Homework and Study: *The* child respondents and parents indicated that children had study time for completing their homework. There were parent respondents who indicated that the children rushed to finish their homework so that they got permission either to play outside home or watch TV.

Work for Income: Though it required intensive analyses, there were children of self-employed parents who were engaged in working for income.

Count of 4. How often do children watch TV per day?

Less than 1 hour
10.0%

2-3 hours
25.0%

1-2 hours
40.0%

Greater than 3 hours
25.0%
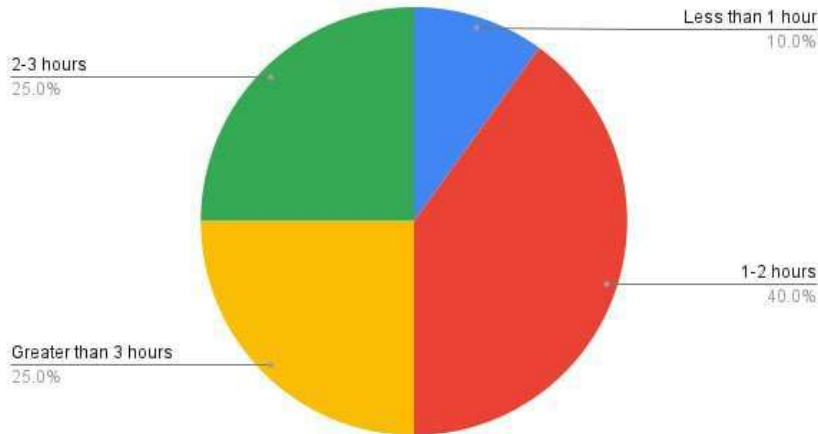
TV and Computer Games: Children were engaged in watching TV and gaming as a means of entertainment and they passed much of their time. The participants indicated that there were few lenient parents who failed to stop the child while misbehaving in the effort of disciplining. In the maladaptive experiences of the children, such as theft, ridiculing others, quarrel, and the like, there were children who disobeyed to parental instructions (eight respondents, i.e. 5.8% respond as often) and 43 (31.2%) rarely.

Count of 6. How do you rate, mobile gaming desire of children?

Low
4.5%

High for medium and
4.5%

Medium
18.2%

High
72.7%
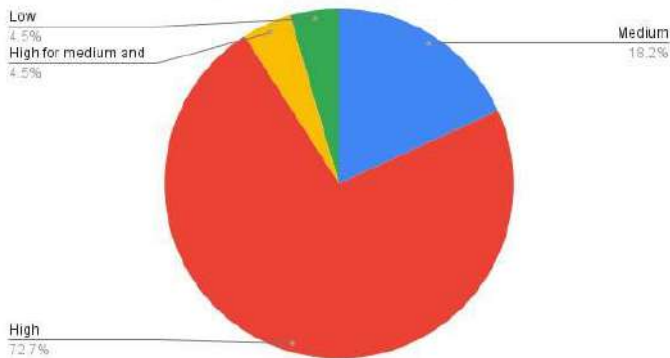
A father of a 9 years old childsaid, "…..*we have forbidden the child not to watch TV. However, we confirmed that at times that we are at work he watches…..*". This response was an indicator as there was less compliance to the orders given by parents especially when the parent wa at remote due to various reasons likejob. In the case of computer/mobile games engagement of the child, the parent participants reflected as children were very keen of mobile games.

Count of 9. Do children insist to engage in mobile game?

Yes, once they get 5.0%

Maybe 15.0%

Yes 80.0%
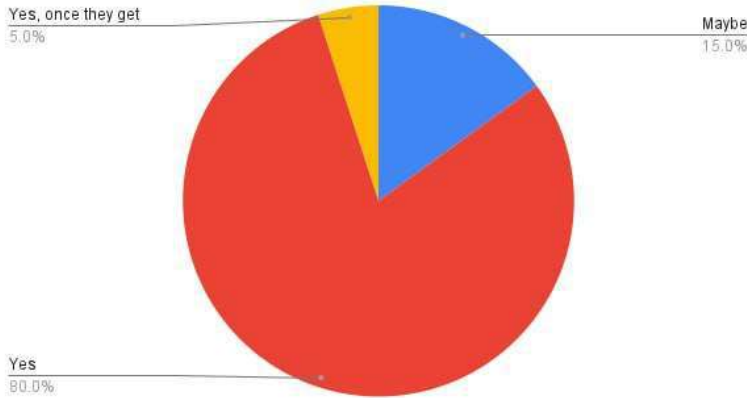
For example, one of the informants, a mother of eight years old boy, indicated that mobile games were being used as enticement/sop. She stated that such a cajolery made the child be deprived of sense of responsibility. More over she explained as:

"…*in our home, we (parents) use game as a means for enticement to make the child do something. My neighbors and most parents whom I know do the same thing. To send the child to shop, we buy for him/her chew gum, or chocolate… Even to make the child read/study, we often say 'if you study now, you will play game late'… This is common in our family and others' too*."

The aforementioned parents were aware of the consequences of such enticement. They indicated that this type of treatment of the child could spoil his/her behavior.

"…*When a guest comes to home, our child rushes to ask the guest for a mobile phone. Then asks whether the mobile has game or not and ask to play game. This makes us feel shame…. I think this is being addicted… It is when we forbid ours that the child request from guests…*" The parent indicated that the behaviors of the child towards the desire for repetitive use of games were above control.

**Outdoor Play***:* In the outdoor play, most children played outside after getting permission to do so. There were differences between parents and children in the arrangement of length of time determined to stay playing outside.

Count of 5. Where do children play?

Out of home 20.0%

Both inside and 45.0%

Indoor/at home 35.0%
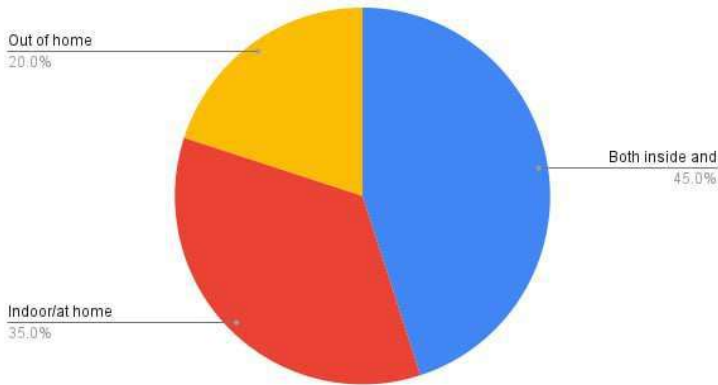
From the observation on children's playground, the investigator detected that there were tendencies to be engaged in cooperative activities with their close friends and competitive with strange/new children in their experiences. In addition, when the parent dominated the children to go to home, they got irritated. They insisted on playing with children around them. Though the aforementioned constructive and encouraging things were available in the outdoor play of children from different household, there were tribulations that these children faced. To mention a few, limited space of playground, playing on muddy area, availability of hazardous sharp materials here and there, spiky and prickly objects were observed in the children's vicinity. There were playground related problems. These were in terms of deprivation or lack of playground and playing materials, and unsafe environment.

Count of 5. Where do children play?

Out of home 20.0%

Both inside and 45.0%

Indoor/at home 35.0%
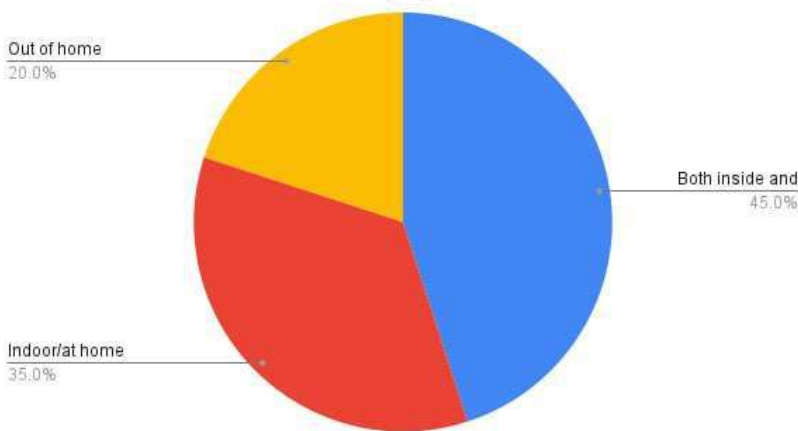
The UN High Commission for Human Rights has recognized play as one fundamental right of every child regardless of any factor like age, gender, culture, social class and disability. Different scholars have highlighted the importance of play in building skills of children which are regarded as vital to succeed in the 21st century. Experts in the area indicated play as an innate childhood

instinct that is not only enjoyable but also crucial to the processes of learning and development. Play is considered as free, spontaneous, and self-initiated activity. Scholars like Mrnjaus (2014) opposeed the newly developing concept that children's free time has become associated only with learning, rather than enjoyment of play itself.

A considerable amount of literature has been published on the benefits of play and its impact on the overall healthy child development. The play has enormous benefits to children with regard to cognitive, emotional, social and physical development (Mrnjaus,2014; ETFO, 2012; Yogman et al., 2018). Hirsh-Pasek and Golinkoff (2018) suggested free play can help children to learn how to negotiate with others, to take turns, and to manage themselves and others. It has also been suggested that obesity could be reduced through rigorous and physically active play. The play starts at home with family members and is considered as essential to developing social and emotional ties. the play helps to build bonds between children and other family members and caregivers. Play also helps forge connections between children.

Despite the fact that the play has numerous benefits to the healthy development of children, scholars mentioned that the actual time for play has decreased. A considerable amount of literature has been published on the fact that time for free play has been reduced significantly for some children (Ginsburg, 2007; Bodrova and Leong, 2004; CEECD; Gleave and Cole-Hamilton, 2012; and Gleave and Cole-Hamilton, 2012; Mrnjaus, 2014). The children today are playing outside less than previous generations due to reasons like more screen time; over scheduling in favor of educational instructions and concerns for safety by parents and caregivers. Increase of commercial toys and technological developments by the toy industry were also mentioned as reasons in fostering more sedentary and less healthy play behaviours in children. Mrnjaus (2014) indicated that the play was considered as 'unaffordable luxury' in modern society due to negative attitudes towards giving children time to play in school. Playtime is perceived as waste time which could be an option to invest it on formal academic learning. What is the situation in Ethiopian context? It will be covered in the next post; stay tuned and also shares your insights on the issue.

Gambling, Stealing, and Bullying

A mother respondent stated misbehavior of a boy as, "…*I found that once upon a time my child took penny and bought marbles and played with neighbor children. This is stealing/theft and gambling*…". Within a family, there were conditions wherein the mother and the father blameed each other for the misbehavior of their child. "አንቺ ነሽ ልጁን ያበላሸሽው"; "አንተ ነህ እንጅ ልጇን እንደልቡ ይሁን እያልክ ያሞላቀቅከው". This kind of move towards the spoil way negatively affected the child's academic achievement.

A mother of two children, a boy of age 11 and 6 years old specified the following.

"*... I (parent) do not have guarantee that my child will go and steal from neighbors' house. The younger sibling too follows the act of the elder one. They take food even out of home and give to their playmates especially if they think that we do not know their act. ....ነገሩ በተረት በእቁላሉ ጊዜ በቁጣሽኝ እንዳለው ነው፣ትንሽ ልጅ ሆኖ እንቁላል ከሰፈር እያመጣ ሲሰጣት እናት ዝም ብላ እየሰራች ይበላሉ፡፡ ሲያድግ በሬ ይሰርቅ እና ሲያዝ ወይኔ እናት በእንቁላል ጊዜ በቁጣችኝ አለ ይባላል፡፡*"It revealed that children got negative experiences that affected productive performance in their educational processes and learning. The aforementioned maladaptive practices or experiences of children appeared inconsequential. Such kind of practices may seem pity but there was implication which needs intervention. There was a statistically significant mean difference that boys (*M=2.3, SD=0.8*) stayed much more time out-of-home in their COSE than girls (*M=2.02, SD=0.85*), *t (450) = 3.58, P < 0.01, d=0.28, 95% CI [0.12, 0.43]*.

Academic achievement

The academic achievement in the analysis was as per the semester average of the children in 2022 academic year. The semester average converted in to standardized score (Z score) for analyzing data. The regression analysis showed that COSEs had statistically significant influence on academic achievement of children as 74% of academic achievement was explained by COSEs.

Variable Relationships and Model Summary

The model summary linear regression depicted that COSEs explained 62.2% of academic achievement ($R^2 = .622, F (1,450)=740.09, p<.001$). A unit change in COSEs changed academic achievement by 0.265. For example, the findings revealed a statistically significant negative correlation between academic achievement and screen time (TV watching/mobile gaming) (r(452) = -0.17, p< .001). As TV and gaming screen time increases, academic performance decreases.

The results of this study differed from the previous research findings in a number of ways. Youngsters spent a lot of time on screen, playing, doing duties around the house, and working during their free time. It was discovered that children who had more adaptable and favorable family characteristics also performed better academic and social in terms of self-regulation. According to the reports, kids with positive OSEs interacted with their classmates more socially. Helpful family and home characteristics, according to earlier research, seemed to have a protective effect against the children's disruptive-aggressive reactions to unsuitable circumstances,. The children in Addis Ababa were engaged in various activities at home depending on their age and interests, such asplaying, watching TV, gaming, educational activities, home chores, and entertaining.

i. Playing

Children have experiences of playing with toys and games, and with siblings or friends. It is heralded that children are engaged in outdoor activities like playing in the backyard or riding bicycles.

ii. Watching TV Shows or Movies, and Gaming

The study revealed that most children were watching TV in unmonitored way. and this negatively affected the time allotment and management for their academic activities. The programs that they watched through TV were not tailored to their ages and the contents were not predominantas per the relevance.

iii. Educational Activities

Most student participants indicated that they studied when there were exams. They rarely read books and stories. From the educational activities, the main triggering aspect was doing homework as they were obliged to do so.

iv. Home Chores

In this study, it was found that children were occasionally engaged in pity home chores, such as making their bed, cleaning rooms, and carrying message from parents.

v. Entertainment

Listening to Music and Dancing

Overall, children can engage in a range of activities depending on their preferences, the availability of resources and parental guidance. These activities can help children develop various essential skills, including cognitive abilities, creativity, communication skills, and motor skills. That said the activities in which the child engaged depended on the age, personality, interests, and the resources available to the child and their family.

Discussions

According to Carl (2007), when caretakers verbalize feelings, emotions, and the importance of them, children gradually develop and understanding of how others feel, and what are the appropriate responses to those feelings. Guided COSEs help promote pro-social awareness showing opportunities for children to participate in situations that foster caring and thoughtfulness.

Child care and support practices can encourage and support children's development of positive self-concept by incorporating materials and activities that respect and affirm children's race or ethnicity, by addressing signs of bias or discrimination, and by promoting collaboration between the program and the home (Carl, 2007).

Very many children are engaged in video games and use of Smartphone of their parents. Osuagwu (2015) indicated as video games and negative behavioral outcomes are associated. Similar to Osuagwu's findings, current study revealed that video games and too screen time (such as watching TV) made school age children in Addis Ababa to have limited social competence, inadequate self-regulation and poor academic achievement.

Multiple factors influence the quality of care and support that happen in the out of home experiences of children. Structural factors, such as adult to child ratio and caregiver's training and education have been linked to positive care giving. Process factors, including caregiver interaction, are also important measures of quality. Each of these factors has been correlated with positive outcomes for children. While there is no one firm definition of childcare quality, there is a consensus within the childhood field regarding what is needed for high quality practices. High quality living environments are ones that include safe and supportive, presence of developmentally appropriate activities and materials, positive interactions with adults, encouragement of individual growth, and the promotion of positive relationships with other children (Carl, 2007). When higher process quality is provided, all children gain in the development of skills e.g. social competence and abilities that are associated with success in school and later in life including self-regulation. The study revealed that there are several negative exposures in COSEs that lead experiences of children to happen in contrary to the positive expectations.

Children are living in a multicultural society where even those who are born into a homogeneous community are unlikely to live their entire lives in a similarly homogeneous environment. It is important for children to develop the skills required to live and work comfortably with people from various backgrounds. This is best done during childhood years when children can learn to view differences in appearances and ways of doing things as interesting and positive rather than as distressing or threatening.

Conclusions and Recommendations

Conclusion

Children have various forms of out-of-school experiences in their daily activities. The experiences are grouped as adaptive/positive or maladaptive/negative based on the consequences. Most children pass much time on screen (TV and mobile gaming) and playing. Children engaged in A fewworks to get money and some others are engaged in different home

chores by receiving order from their parents. Doing tailored activities as home chores makes children be introduced into daily practical skills. On the other hand, unmonitored/uncontrolled screen time distracts social competence, self-regulation and affects academic achievement negatively.

In their OSEs, most children have experiences of studying and doing home alone (academic activities). Most children have play time in and outside home in COSEs. Children are excessively engaged in gaming, watching TV, and other related activities. It means children are exposed with too much unmonitored screen time. In rare conditions; gambling, bullying, and disrespectful interactions were observed (cases from Tiktok and EBS TV). Academic achievement is highly affected by COSEs.

Children's out-of-school experiences are positively correlated with academic achievements. Though the observation areas and frequencies were inadequate, those conducted sessions gave lesson on the way of executing the planned observations. For example, the observation process can be best handled when there are assistants whose living place is proximal to the setting of the observation.

Children spend an average of 2 hours and 45 minutes of screen time by watching TV and/or gaming on mobile per day. This is so serious that the screen time highly affects academic achievement. Boys spend more time outside home as engaged in outdoor practices in their COSEs.

Recommendations

The following recommendations are put as ways forward.

1. Parents should monitor COSEs. There should be close follow up of COSEs.

2. Benevolent activities should be encouraged.

3. Screen time should be minimized to 1 hour or less by avoiding destructive games.

4. Projects on building after-school institutions around residence are imperative for safeguarding children from problematic exposure.

5. Further study can be done in COSEs and children's behavioral outcomes.

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Improving the Agronomic and Economic Performances of Cassava (*Manihot esculenta* crantz) Production through Varieties And Planting Positions in Gena Bosa District of Dawuro Zone, South-Western Ethiopia

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Abstract

Limited varieties along with planting position were among the major factors that limited cassava production in Ethiopia. Therefore, a field experiment was conducted in the Mela and Bodi sub-districts of Gena Bosa district in Dawro Zone during 2017 cropping seasons to determine the responsse of cassava varieties to different planting position. The treatments consisted of four varieties (Local, Variety, Kello and Awassa-04 varieties) and three planting positions (inclined at an angle of about 45°, 90° and 180°). The experiment was laid out as a randomized complete block design (RCBD) and replicated three times per treatment. Data were collected on phenology, growth, yield components and yield. The data were subjected to analyses of variance. The results indicated that interaction effect of variety and planting position significantly affected all parameters. Kello variety planted slant planting position both at Mela and Bodi sub-district significantly improved phenology, growth, root morphology, yield components, and root yield of cassava. The average root yield of cassava obtained in Kello variety planted slant planting position at Mela sub-district Kello variety planted slant planting position at Mela and Bodi sub-districts exceeded the average root yield obtained from local cassava planted horizontally at Mela and Bodi sub-districts. The highest mean net benefit (210,520 ETB ha^{-1}) with an acceptable marginal rate of return of 12,489.09 % was obtained from Kello variety planted slant planting position. Thus, planting Kello variety in slant planting position is suggested for maximizing the agronomic and economic returns of cassava farmers in the study area.

Key Words: Economic Analysis; Growth; Root Morphology, Yield Components, Root Yield

1. NTRODUCTION

Cassava (*Manihot esculenta* crantz) global production is about 278 million metric tons in 2021, out of which Africa's share was about 61% (FAOSTAT, 2022). According to FAO projections, by 2025, about 62% of global cassava production will come from sub-Saharan Africa (FAOSTAT, 2020). Cassava is one of the major root crops grown in the lowlands of Ethiopia (Amsalu, 2003). Currently, root crops occupy 0.9% of the area cultivated to other crop types (248,357.51 hectares) in the country (CSA, 2022). Cassava is among the most widely cultivated crops in lowland areas of Wolaita and Dawro Zones in Southwestern Ethiopia (Kebede *et al*., 2012; Mulualem *et al*., 2013).

Cassava root plays a significant role in human food and the leaf for livestock fodder (Biruk, 2013). In Gena Bosa district in Southwestern Ethiopia cassava is among the major root and root crop in area and root yield production. According to GBDADO (2017) cassava occupies 56% of the area of land allotted to the production of root and root crops. However, farmers harvest a lower average yield (23.5 t ha^{-1}) than the cassava yields can obtained under optimal conditions (80 t ha^{-1}) (Howeler *et al*., 2013; FAO, 2018).

Limited improved varieties and position of planting are serious problems constraining cassava productivity in Ethiopia (Legese *et al.,* 2011). In most cases, farmers in Dawuro Zone plant local cultivar and planted in horizontal position only (GBDADO, 2017). The problem resulted for lover cassava productivity in the study area. Shadrack et al. (2017) also indicated that verity and planting position related problems are major yield-limiting factors of cassava. In the meantime Legese *et al.* (2011) reported that limited improved varieties and position of planting significantly influenced the root yield of cassava at Dawuro in Southwestern Ethiopia. The limitation of improved cassava varieties and proper planting positions requires immediate attention for sustaining production and productivity of crops in smallholder farms in the study area.

Planted variety is the major determinant factor for higher root quality and productivity (Sukmadjaja *et al*., 2011). Also, reports in Ethiopia have shown that improved varieties increase root yield about 89% than local cultivar (Misganaw *et al.,* 2020). This is due to the genetic potential of improved varieties, which enable to have higher root yield (Mulualem et al.2012). In this regard, the most districts in Dawuro Zone are used the local cultivars (Bilate *et al*., 2022). Confirming this problem, Berhanu *et al.* (2023) reported that limited varieties are the major factor constraining cassava root yield production in Dawuro Zone. Thus, the survival, growth, and root yield of cassava are highly affected in study area due to a lack of improved varieties (Daemo *et al.,* 2023).

About 34% higher root yield of cassava obtained in slant planting position than in horizontal planting position (Polthanee *et al.,* 2017). Narmilan and Puvanitha (2020) indicated significant contributions of slant planting position to improved growth and root yield productivity of cassava. However, in many parts of Ethiopia, horizontal planting position is very common (Legese *et al.,* 2011; Legese, 2018; Tadesse *et al*., 2017). For instance, Legese *et al.* (2011) showed that combined effect of Qule variety and slant planting position contributed to 31.2 t ha^{-1} than control treatment (14.4 t ha^{-1}) in SouthwesternEthiopia. In agreement with this, Daemo *et al.* (2023) reported that the combined use of variety and planting position contributed more root yield improvement in cassava than local variety planted in horizontal and vertical position.

To improve the root yield of cassava, variety and planting position is vital (Polthanee et al. 2017). However, the best variety and planting position combination is site specific and there exists limited information in Gena Bosa district and the study areas in particular. In this study, it was hypothesized that the variety planted and planting position improve root quantity and quality of cassava. Therefore, this research was conducted to evaluate the combined effects of cassava variety and planting position on the productivity of cassava in Gena Bosa district in Dawuro Zone, Southwestern Ethiopia.

2. MATERIALS AND METHODS

2.1. Description of the Experimental Site

The study was conducted during the 2017 main cropping seasons on farmers' training center of Mela and Bodi sub-district of Gena Bosa district in Dawuro Zone, Southwestern Ethiopia.

The study site was selected purposively based on its high cassava production potential. The experimental site is located at 07°01'00" N latitude and 37°14'00" E longitude, and an altitude of 900 to 2350 meters above sea level (Mathewos *et al.,* 2013). In the 2017 cropping seasons, the mean monthly temperatures of Mela and Bodi sub-districts ranged from 15 °C to 30.5 °C and from 14.5 °C to 28.8 °C, respectively with annual rainfall of 1,187 mm and 1376 mm, respectively (NMA, 2018). The dominant soil type in both the study areas is Nitisols (Mathewos et al., 2013).

2.2. Experimental Materials

2.2.1. Planting material

The experiment was included Qule, Kello and Awassa-04 cassava varieties were obtained from Hawassa Agricultural Research Center and local cultivar used as control treatment. These

varieties were selected based on their agro-climatic requirements (900–2600 ma.s.l), which suited with the study area (Wondimu *et al.,* 2023).

2.3. Treatments and experimental design

The treatments consisted of four varieties (Local, Variety, Kello and Awassa-04 varieties) and three planting positions (inclined at an angle of about 45°, upright position about 90° and burred about 180°). The experiment was laid out as a randomized complete block design in a factorial arrangement and replicated three times per treatment. The plot size was 4.5 m x 4.5 m (20.25 m^2) with 1 m spacing between plots and 2 m between blocks. The inter-row and intra-row spacing was 90 and 90 cm, respectively, and each row and plot consisted of 6 and 36 plants, respectively (Legese *et al*., 2011).

2.4. Experimental procedures

The experimental field was ploughed three times using a traditional oxen-drawn *maresha* followed by manual root-bed preparation method and laid out according to the experimental design. The middle part of the main stem, which had 25 cm length and at least with four buds were burned and compacted. In case of slant and vertical planting positions, the two-thirds of the length of the cutting buried; whereas in horizontal planting position the cutting burred in furrow depth of 10 cm and fully covered by soil (Legese et al. 2011). Planting was carried out in 08 April 2017 following the onset of rainfall. Weeds were removed by hand weeding after crop emergence up to harvesting. Harvesting was done manually using hand digging tool as done locally by cassava farmers. The crop was harvested on 18 June 2018.

2.5. Data collection and measurement

2.5.1. Phonological data

Data on the number of days to bud sprouting was recorded starting from the date of planting until 50% of the plant population in the plot exhibited visible buds. However, the number of days to physiological maturity was recorded from the date of planting to when 90% of leaf of the cassava plant stands in a plot changed to a yellow color.

2.5.2. Growth data

All growth data were recorded from five randomly selected plants from the central rows at harvest. Plant height was measured from the base to the tip of the plant by using a measuring tape. The numbers of primary and secondary branch were determined by counting all branches

originating from the main stem and secondary branch, respectively. The number of buds per plant was counted buds sprouted from all stem.

2.5.3. Root morphological data

Data on the root morphology of the cassava consisted of all parameters, which contributed to a change in the external structure of the root of cassava plants. In the meantime, all morphological data were recorded from five randomly selected plants at the flowering stage harvest from the central rows of each plot to keep the uniformity of the effect of uprooted plants on yield. Prior to measuring the root length, number of roots per plant and root diameter, root samples carefully dig out. The root length of longest root per plant was measured from the base to the tip of the root by using a measuring tape. The number of roots per plant was counted after the soil clods were carefully removed. Root diameter was recorded by using a digital caliper by attaching it to the center of a stem.

2.5.4. Yield components and yield data

Total root yield, marketable and unmarketable root yield were determined by weighing the fresh weight using a sensitive balance at harvest.

Marketable root yield (t ha^{-1}): It was calculated by weighing all the roots which were free from defects, disease, crack, and other physiological disorders and not underweight per net plot area and converting into ton per hectare (Tesfaye *et al*., 2013).

Unmarketable root yield (t ha^{-1}): Roots which were damaged, diseased and insect pest attacked, undersized (<10 cm), misshaped, decayed was considered as unmarketable.

Total root yields (t ha^{-1}): It was calculated as the sum of the weights of marketable and unmarketable roots from the net plot area and transformed to ton per hectare.

2.6. Data Analysis

Homogeneity of variances was tested using the F-test as described by Gomez and Gomez (1984). Since the F-test showed homogeneity of the variances of the two location for most of the agronomic parameters, a combined analysis of variance was done using SAS version 9.4 (SAS institute, 2013) following the procedure described by Gomez and Gomez (1984). The treatment means were separated using the Least Significant Difference test at a 5% level of significance.

2.7. Partial budget analysis

Partial budget analysis was done as described by CIMMYT (1988). All varieties and labor for planting positions were considered to analyze the partial budget of the cassava. Since root is important for farmers, the partial budget analysis considered the mean marketable root yields of each treatment in the 2017 cropping seasons. Economic analysis was done using the prevailing market prices for inputs at planting and outputs, at the time the crop was harvested. The costs of varieties were based on the market price of Hawassa agricultural research center in Southern Ethiopia. All costs and benefits were calculated on a hectare basis in Ethiopian Birr (ETB). Total costs that varied (TCV) included the sum of the costs incurred for purchasing of varieties, transporting, and planting. The costs were estimated from market and farm gate prices. The costs of purchasing local, Qule, Kello and Awassa-04 cassava varieties was 8 birr Birr kg^{-1}, 12 birr Birr kg^{-1}, 12 birr Birr kg^{-1} and 12 birr Birr kg^{-1}, respectively. The average local market price of cassava was 8 birr Birr kg^{-1} in 2018 cropping year. For a hector of land 300 kg cassava cutting was planted. The labor cost per a hectare of land for horizontal, slant and vertical positions were 300 Birr, 200 Birr and 200 Birr, respectively. Actual root yields were adjusted downwards by 10% to reflect the difference between the experimental yield and the yield farmers would expect to get from the same treatment. Then the net benefit (NB) is calculated as the difference between the gross benefit (GB) and the TCV (CIMMYT, 1988). The dominance analysis procedure as described in CIMMYT (1988) was used to select potentially profitable treatments from the range that was tested. The discarded and selected treatments using this technique are referred to as dominated and un-dominated treatments, respectively. The un-dominated treatments ranked from the lowest to the highest cost. For each pair of ranked treatments, the percentage marginal rate of return (MRR) was calculated. The MRR percentage between any pair of un-dominated treatments was the return per unit of investment in variety. To obtain an estimate of these returns, the percentage MRR was calculated as changes in NB divided by changes in TVC. A treatment, which was non-dominated, and having an MRR of greater or equal to 50% and the highest net benefit said to be economically profitable (CIMMYT, 1988). However, Getachew and Chilot (2016) suggested an MRR of 100% as realistic in our country. Thus, for this study, 100% and above return to the investment was considered as a reasonable minimum acceptable rate of return.

3. RESULTS AND DISCUSSION

3.1. Crop Phenology

3.1.1. Days to flowering

The duration in the number of days required by the plant to reach 50% days to bud sprouting was significantly (P<0.05) influenced by the main and interaction effects of varieties, planting position and location.

Interaction of varieties, planting position and location resulted in significantly varying numbers of days required to reach 50% days to bud sprouting of cassava (Table 1). In this regard, delaines to reach days to 50% bud sprouting in horizontal planting position and early sprouting observed in vertical planting position in all planted varieties and both locations (Table 1). This result shows that horizontal planting position prolonged days to bud sprouting whereas slant and horizontal positions shortened it. Overall, the early and late bud sprouting of cassava obtained on Awassa-04 variety planted in vertical position at Bodi and local variety that planted horizontal position at Mela. Thus Awassa-04 variety planted in vertical position at Bodi reduced the days to bud sprouting by 23 days than local variety that planted horizontal position at Mela. This may be associated with the exposure to external environments that facilitated early sprouting on vertical planting position than slant and horizontal positions. Since exposure for solar radiation facilitate more bud sprouting of the crops (Howeler *et al*., 2013). In addition, relatively higher temperature at Bodi reduces the days to bud sprouting than Mela (Table 1). This result shows that low temperature delayed bud sprouting, whereas an increased temperature hastened it. The result is consistent with the natural tendency of increased temperature to reduce the days to phonologic parameters of the plants. The result is consistent with the findings of Misganaw and Bayou (2020) who reported different days to 50% days to bud sprouting in the same varieties in different locations at Fafen District in Ethiopia.

Days to physiological maturity

Days to physiological maturity of cassava was significantly (P < 0.05) influenced by the main and interaction effect of varieties, planting position and location.

The number of days required by cassava to reach physiological maturity varied from 400 to 413 days in response to the interaction effect of varieties, planting position and location. Thus, the lowest numbers of days required by the plant to reach physiological maturity were recorded for the interaction of local varieties and horizontal planting position at Bodi sub-district. On the other hand, the longest days required to reach maturity by the plant were recorded for interaction of local varieties and horizontal planting position at Mela sub-district. The result is statistically equivalent with interaction of all varieties with three planting position in both location, except for interaction of Awassa-04 and Kello varieties planted in vertical and slant planting position in both locations , respectively (Table 1). Thus, late maturity in interaction of local varieties and horizontal planting position at Mela sub-district due to favorable soil and environmental condition that resulted for delayed maturity in cassava (Sukmadjaja and Widhiastuti, 2011). The result is in line with the findings of Narmilan and Puvanitha (2020), who reported that interaction of local varieties and horizontal planting position reduced the days to physiological maturity of the cassava by 12 days than local varieties that planted in horizontal position.

3.2. Growth Parameters

3.2.1. Plant height

The height of cassava plants varied significantly (P < 0.05) in response to the main and interaction effects of varieties, planting position and location. Interaction of local variety with horizontal planting position at Mela resulted in 14.6% more height than interaction of Awassa-04 variety with slant planting position at Bodi. The tallest cassava plants obtained from the aforementioned treatment is statistical parity with the heights of plants obtained from interaction of Qule variety with vertical planting position (Table 2). The result signifies the vital role of the variety; planting position and location promote growth of the cassava plants. Growth of the tallest cassava in interaction of local variety with horizontal planting position at Mela could be associated with the synergic role of suitable variety, planting position and location combination. Since, it promoted cell division, growth, and differentiation (Narmilan and Puvanitha, 2020). Because of the cumulative role of varieties, planting position and soil nutrients variability in each location attribute for cell division, cell expansion, and enlargement, this might have ultimately contributed to growth in plant height of cassava. Consistent with this result, Polthanee and Wongpichet (2017) reported that slant planting position resulted in 6.6 cm more height than vertical planting position.

3.2.2. Number of buds

The number of bud was significantly (P≤0.01) affected by main and interaction effect of varieties, planting position and location.

The highest and lowest number of bud was recorded at interaction of Kello variety planted slant position at Mela and control treatment, respectively (Table 2). Thus, the interaction of Kello variety planted slant position at Mela resulted in about 48.2% larger number of bud than local at Bodi. The result might be associated with the combined role of varieties, planting position and location. The results are consistent with that of Narmilan and Puvanitha (2020), who reported slant planted cassava, resulted in about 12.6 % larger number of bud than horizontally planted. Wondimu *et al*. (2023) also reported that all improved varieties resulted in a considerably branches than the local cultivar.

3.2.3. Number of primary branches per plant

The number of primary branches per plant responded significantly (P < 0.01) to the main and interaction effects of varieties, planting position and location. The highest number of primary branches per plant was obtained at Kello variety planted slant planting position at Mela, which is statically equivalent with local variety planted horizontal and Awassa-04 planted vertical

position at Mela. Also aforementioned treatment statically equivalent with local variety planted horizontal and Kello variety planted slant position at Bodi. On the other hand, the lowest number of primary branches per plant was recorded on local variety planted horizontal at Bodi, which is statistically similar a variety planted at Mela (Table 2). The results of this study indicated that variety, planting position and location alone would not lead to the maximum number of primary branches per plant. However, the interaction of variety, planting position and location led to a significantly higher number of primary branches per plant. Since, the soil nutrient contain varies location to location and plants that received sufficient nutrient typically exhibit vigorous plant growth that is attributed to the number of the branch (Sukmadjaja and Widhiastuti, 2011). On the other hand, the number of primary branches varied as per the variety planted. Whereas, the combination of suitable planting position with appropriate variety facilitates healthy growth and increased the number of branches per plant (Polthanee and Wongpichet, 2017). In line with this result, Shadrack *et al*. (2017) indicated interaction of variety, planting position and location highly influenced the number of branches per plant of cassava.

3.3. Root Morphology of Cassava

3.3.1. Root length

The main and interaction effect of varieties, planting position and location significantly (P < 0.05) influenced the root length. The root length might be associated to planted variety, planting position and availability of sufficient nutrient in each location. For instance, maximum root length was produced in response to local variety planted in slant position at Bodi, which is statically equal with the same variety planted in horizontal position at Mela and Kello variety planted in slant position at Kello (Table 3). The maximum root length achieved in aforementioned treatment due to maximum vegetative growth in local variety due to adaptability to environment and in which the root length increased to balance root to shoot ratio (Dolan and Davies, 2014). Also the slant planting position and the soil textural class at Bodi might contribute for root perforation and elongation. In line with this finding Wondimu *et al*. (2023) reported the tallest root length on local cultivar than improved varieties at Southwestern Ethiopia.

3.3.2. Root diameter

The root length was significantly (P < 0.01) affected by the main and interaction effect of varieties, planting position and location.

The widest and narrow root diameter was recorded in Kello variety in slant planting position at Mela and local variety in horizontal planting position at Bodi, respectively. The narrow root diameter obtained parameter was statistically similar with Qule variety planted in vertical

planting position at Bodi and Kello variety in vertical planting position at Bodi. Thus, Kello variety planted in slant position at Mela was 56.7% higher root diameter than that of local variety in horizontal planting position at Bodi (Table 3). The results clearly show the cumulative effect of varieties, planting position and location high effect on root diameter. Since, the root diameter directly associates with the variety, the soil fertility status of planted location and proper planting position. Particularly nutrient deficiency, promotes the production of more roots per plant as an adaptation mechanism to low nutrient supply than resulted for narrow root diameter (Fageria and Jones, 2011). This suggestion is consistent with the proposition of Legesse (2018) that interaction effect of varieties, planting position and location significant influence on the diameter of cassava at Amaro southern Ethiopia.

3.3.3. Number of roots per plant

The main and interaction effect of varieties, planting position and location significantly ($P < 0.05$) influenced the number of roots per plot.

There is no discernable trend was observed in the number of roots per plant in the response to varieties, planting position and location (Table 3). Thus, the interaction of Kello variety with slant planting position at Mela lead to the production of 15 more number of roots per plant than local variety planted with horizontal position at Bodi and Mela (Table 3). This result may indicate the cumulative effect of genetic potential of Kello variety and suitability of slant position enhanced the number of roots per plant at Mela. Since the number of roots per plant directly correlated with planted cassava variety (Wondimu *et al.,* 2023) and planting position (Polthanee and Wongpichet, 2017). Also fertile soil promotes the number of roots per plant (Fageria and Jones, 2011). Furthermore, some studies conducted in a different part of Ethiopia had shown the positive effects of varieties, planting position and location to increase the number of roots per plant of cassava (Legese *et al*., 2011; Misganaw and Bayou, 2020; Mulualem and Ayenew, 2012; Mulualem and Dagne, 2015). Overall, this study noted that the cumulative effect of improved varieties, suitable planting position and the soil fertility status of planed location increased the number of roots per plant of cassava.

3.4. Yield Components and Yield

3.4.1. Unmarketable roots

The main and interaction effects of varieties, planting position and location significantly (P<0.01) influenced unmarketable roots (Table 4).

 Higher unmarketable roots obtained in all varieties planted in horizontal position (Table 4). Consequently, the highest unmarketable root was produced in local variety planted in horizontal

planting position at Bodi. The result statistical parity with local variety planted in horizontally at Mela, Kello variety planted vertically and horizontally at Bodi and Qule variety planted vertically at Bodi (Table 4). On the other hand, the lowest average unmarketable roots was produced by Awassa-04 variety planted slant and vertical position both at Bodi and Mela (Table 4.). For example, unmarketable roots obtained in local variety planted in horizontal planting position at Bodi exceeded the unmarketable roots produced in response in Awassa-04 variety planted slant position both at Bodi and Mela by 72.8%. This signifies the local variety is, in fact, had many defects and planting of improved varieties with proper planting position is required to reduce the amount of unmarketable roots per. Similar results were obtained by Wondimu *et al*. (2023), who reported higher amount of unmarketable roots local cassava cultivar. Furthermore, Polthanee and Wongpichet (2017) also reported lower unmarketable roots due to interaction of local cassava cultivar with horizontal planting position.

3.4.2. Marketable roots

The marketable root significantly (P < 0.01) by the main and interaction effect of varieties, planting position and location.

The marketable roots were higher in all improved varieties than local cultivar in both location and in all planting positions (Table 4). Thus, the highest marketable roots were recorded at Kello variety planted in slant position at Mela, which is 64.6% more than the marketable roots obtained from the control (local cultivar planted in horizontal position at Mela) (Table 4). The highest marketable root from the aforementioned treatment was in statistical parity with the marketable roots obtained in Awassa-04 variety planted in vertical position at Mela (Table 4). The results of this study indicated that the improved variety combination with proper planting position at right place would lead to a higher marketable root. In agreement with this result, Sukmadjaja and Widhiastuti (2011) reported significantly higher marketable roots in response to slant position.

3.4.3. Total root yield

The total root yield significantly (P < 0.01) by the main and interaction effect of varieties, planting position and location. The improved varieties significantly and consistently increased total root yield of cassava than local cultivar in three planting position in both locations (Table 4). Thus, the highest total root yield of the crop was obtained in response to Kello variety planted in slant position at Mela, which is statistical parity with local variety planted in horizontally at Mela and Awassa-04 variety planted in vertically at Mela (Table 4). On the other hand, the lowest total root yield was produced in response to local cultivar planted

horizontally in both locations. This total root yield exceeded the total root yield obtained in the control treatment (local variety planted in horizontally) by about 128.3% (two-fold). The

improved cassava planted with proper position in the right place may have experienced high rates of photosynthesis and typically exhibit vigorous plant growth that contributed to total root yield in cassava (Sukmadjaja and Widhiastuti, 2011). Overall, the enhanced production of total root yield in cassava in response to the improved varieties and proper planting position could be attributed to the physiological roles in plant growth and total root yield. This implies that the suitable combination of improved cassava variety with proper planting position at favorable place fulfilled the growth requirements of the plants through synergic effects (Narmilan and Puvanitha, 2020). Consistent with this result, Polthanee and Wongpichet (2017) reported planting of improved variety with slant planting position increased the total root yield of cassava by 34.7% than a local cultivar planted in horizontal position. Similarly, Legese *et al* (2011) also showed a 111% improvement in total root yield of cassava due to planting of Kello and Qule varieties with slant planting position.

3.5. Partial budget analysis

The maximum net benefit of 210,520 ETB ha^{-1} was recorded at Kello variety planted in slant planting position at Mela sub-district. The result is followed by Awassa-04 variety planted in vertical planting position at Mela sub-district (197,560 ETB ha^{-1}) (Table 5). However, the minimum net benefit of 66,900 ETB ha^{-1} and 73,140 ETB ha^{-1} were gained on local cultivar planted horizontally at both Bodi and Mela sub-district (Table 5). Overall, the economic analysis revealed the highest net benefit (210,520 ETB ha^{-1}) with an acceptable MRR (12,489.09%) Kello variety planted in slant planting position at Mela sub-district (Table 5). The economical net gain at Kello variety planted in slant planting position at Mela sub-district was about 2.28 fold higher than local cultivar planted horizontally at Bodi sub-district (Table 5). The possible reason for the higher economical net gain at Kello variety planted in slant planting position at Mela sub-district could be associated with higher economic yield gained due to the suitable combination of variety, planting position and location, which enhances the net profit. Thus, Kello variety planting in slant planting position is suggested for the higher mean net benefit of cassava growing farmers in the study area.

4. CONCLUSION

The results of this study demonstrated that the phenology, growth, root morphology, yield components, and root yield were significantly influenced by the interaction of variety, planting position and planting location. A maximum cassava root yield of 30.43 t ha^{-1} was recorded in Kello variety planted slant planting position at Mela sub-district. The result was in statistical parity with the root yield obtained in Awassa-04 variety planted vertically at Mela sub-district. However, the lowest root yield (13.33 t ha^{-1}) was recorded for local cassava planted horizontally at Bodi sub-district. Overall, the root yield produced in Kello variety planted slant planting position at Mela sub-district is about two-fold higher than the root yield obtained in local cassava

planted horizontally at Bodi sub-district. In general, for a better root yield (30.43 t ha^{-1}) and the highest mean net benefit (210,520 ETB ha^{-1}) with an acceptable marginal rate of return (12,489.09%), farmers in the study area are advised to plant Kello variety planted slant planting position. Therefore, this finding suggests that to plant Kello variety in slant planting position to maximize the agronomic and economic returns of the crop for enhanced food security, higher income, and improved livelihood of cassava farmers in the study area.

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Closing Remark, By Misganaw Solomon (PhD), Vice President for Research and International Relations, St. Mary's University

Dear Dr. Wondwosen Tamrat, Founder and President of St. Mary's University, SMU staff, invited guests, paper presenters, participants, ladies and gentlemen,

Good afternoon,

I would like to acknowledge the invaluable contributions of all who made the 16th Multi-Disciplinary Seminar of St. Mary's University (SMU) successful.

Today's Seminar held for the 16th year in a row demonstrates SMU's continued commitment in researching undertakings and exchange of ideas towards knowledge creation and sharing. This Seminar is the second research forum SMU held in this academic year after a month and a half since the university organized the 22nd International Conference on Private Higher Education in Africa. This Multi-Disciplinary Seminar in which we listened to the findings of nine research papers has brought together scholars and practitioners from diverse walks of life to deliberate on issues that need improvement.

I am pleased to have witnessed the lively deliberations that took place at today's Seminar. It is my strong conviction that the ideas raised at this Seminar will have meaningful contributions to the growth and development agenda of our country.

As you all may notice, we have had papers across various disciplines – Agriculture, Accounting and Finance, Economics, ICT, Health, Philosophy, and Sociology. This makes the Seminar multi-disciplinary and SMU's endeavor in contributing to Ethiopia's strategic plans even in the areas where it does not offer training.

I, on behalf of SMU, would like to thank all parties who worked hard to make this Seminar realized. Specifically, I feel honored to extend my appreciation to the Founder and President of the University for his Unreserved Commitment, encouragement and support to research and publication. Had it not been for his unwavering guidance and support, this Seminar would not have been held.

I like to extend my heartfelt gratitude to the researchers who were the causes for our gathering today. My acknowledgements and thanks are due to the Research and Knowledge Management Office team led by Assist. Prof. Matheas Shimelis for the successful organization of the Seminar. The International Relations and Communication Office too deserves appreciation for its valuable contribution in the successful organization of the event. I would also like to acknowledge the

various SMU offices which collaborated with the Research and Knowledge Management Office. You, participants, deserve appreciation for making the deliberations live.

Finally, I like to remind you that we have two more research undertakings – the annual national Student Research Forum and the annual national Open and Distance Learning Seminar – which will be held in the next two months, making the annual research to be presented four times in a year. Hoping to see you at the upcoming research forums, I declare that the Seminar is closed.